THE
DIETETIC AND HYGIENIC GAZETTE

A Monthly Journal of Individual and Public Health.

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Vol. XXX. APRIL, 1914. No. IV

EDITORIALS.

SCIENTIFIC EFFICIENCY.

A really scientific efficiency will produce the best possible results all around, advantaging not only one factor in the economic scheme, but mutually every one and all. Any other kind of efficiency is spurious and not scientific; and will be found in the long run not to pay anybody concerned—employer, employee or middleman—nearly so well as scientific efficiency. The capabilities of any inanimate, inorganic machinery, such as is made of wood, metal, leather and so on, with the amount of finished product that can be got out of it in any given number of hours, can be mathematically gauged; the expense of running a plant, the cost of the raw material, the freightage and the like—such factors are easily estimated.

It is not so easy to gauge the capabilities of the organic, the man-machine which is the fundamental factor in the world's work; and yet any plan to secure mercantile efficiency that would claim to be scientific has got to take into serious and sympathetic account the nature and the capabilities of the sentient, the human machine.

It is a spurious and not a real efficiency which would tend to strain and overspeed and exhaust unduly the workman, either he who works the more with his brains or he who works mostly with his muscles. The fagged brain or muscle doesn't pay, because it is unreliable; and this in turn means wanton extravagance. It is economic waste to goad a tired mind or body beyond the normal limits.

The true scientific management will stop labor before fatigue reaches the stage of unreliability. And one must consider here, not only daily but also weekly exhaustion. A wholesome fatigue, which good food well enjoyed, and a good night's rest, will recuperate, is the natural (and the blessed) state of man; but exhaustion beyond the powers of recreation—which is re-creation (making over again) is unnatural and therefore economic folly. It is uneconomic, if nothing else, to have exhaustion increase progressively day by day and week by week, until the human machine must go before its time to the scrap heap; this is uneconomic for the employer, because the longer any man is on a job the more experienced he becomes; and an employee's experience is a business asset, well worth paying for.

Fatigue of the human machine is the cry of the builders for more material, when the supply has been depleted by successive effort. Every muscular movement is a chemical process manifested by heat, motion and perspiration. All combustion, whether vital or inorganic, is a chemical combination of atmospheric oxygen with the elements (food or coal) taken in the machine; in the one instance the body's discharges, in the other, ashes and clinkers are the residue of the burning. Forced draft will the sooner and the more wastefully consume the fuel and wear out the machine, no matter of what kind.

Laboratory experiments have shown the essential nature of this chemical process in the human machine, and its relation to fatigue. A muscle being stimulated, there is release of energy, part of which contracts the muscle, whilst the rest as heat, maintains the bodily temperature or is wasted in perspiration. Fatigue is due mainly to the waste products resulting from this chemical

reaction. Inject the extract of a fatigued muscle into an animal and it will show great prostration; but inject an extract of a non-fatigued muscle, and no languor at all is apparent. A fatigued muscle is one which, by reason of repeated contractions, has undergone much chemical change, with accumulated waste; and the waste, instead of being discharged, gets distributed through the blood all over the body. Thus soldiers, after an exhausting march, are just as arm tired as they are leg weary.

The role which accidents play comes in here: The best surety against industrial accidents is an alert mind and a virile body; on the other hand the ideal predisposition to accident is an exhausted, run-down, devitalized human machine. In Europe they have scientifically worked out the relation between fatigue and accidents; with the result that the latter have been reduced at least fifty per cent.

Bank clerks make most of their mistakes in the late afternoon; this is one of the reasons why banks close early—the bankers have found their employees' mistakes too expensive. And every one knows what dreadful calamity results when railway men work continuously too many hours. A wise corporation, however selfish, will make its hours of labor of reasonable number; and indeed, it is most gratifying to observe that the essential parallelism of efficiency and humanity is being more and more appreciated throughout civilization.

Doctors, by the way, are oftentimes overworked; when this is so, the patient had best be content with the services of an assistant (or a confederate, as has been said); men who have in their keeping the health of human beings (the most precious thing in existence) must be assured rested minds in healthy bodies. The same consideration should be had for druggists; to err (with perhaps fatal results) in filling a prescription is indeed human; and hardly blameworthy in a man who must be at his desk more than half the twenty-four hours.

"LET THERE BE LIGHT."

"Let there be light;" also, let the light be placed so that it shall not glare, and be properly disposed in relation to shadows.

In the splendid campaign now on for the alleviation of occupational diseases and accidents the part taken by Mr. Leon Baster, founder and secretary of the Engineering Society of England and Editor of *The Illuminating Engineer,* is most worthy of appreciation.

Mr. Gaster insists first that light (whether natural or artificial) shall be sufficient for the work to be done. In Holland a minimum of illumination has been fixed for general work; and in trades especially trying to the eyes, such as jewelry, engraving, embroidering and the like, a minimum has been established. The British Government is requiring photometric measurements to be carried out in many factories, to the same end.

Sufficient light being forthcoming, the next problem is how to use it wisely. Factory lamps are oftentimes not sufficiently shaded; and are placed so that they dazzle the eye and strain the vision. A man habitually using his eyes in strong light decomposes his "visual purple" faster than it can be regenerated. Besides, a constant, extreme fatiguing and painful muscular contraction is compelled. So the most lighted room is not always the best lighted. Very few modern illuminants are of sufficiently mild intensity to permit their use at close range. The old soft, mellow yellow candle or gas light, when there was sufficient of it, treated the human vision much more mercifully and benignantly. Powerful lamps must be screened by such well-designed reflectors as will both remove the glare, and direct the light, not upon the workman's eyes, but upon the object.

And lamps must be properly placed as to shadows. Not to one's right hand, for example, where it will shadow the sheet one wished to write upon, or the material the driller or cutter wishes to work upon. Here is a common defect in banks and offices;

and many an operative's hand and fingers have been mutilated by reason of the light casting a shadow of the head or body at work. In many shops the light falls on the floor (where it is wasted), rather than upon the tables, where the work is to be done. Dangerous machinery should ever be well-lighted; it is worse than useless to place a guard about such machinery, if working it in semi-darkness invites maiming or even death.

Bad lighting headed the list of causes leading to accidents in a report of a metropolitan casualty company, in which it was shown that when darkness set in early and artificial light had to be depended upon, the accident percentage rose progressively and became greatest in the darkest months. Throughout the year a relatively large proportion of accidents occur after four P. M. —the time when artificial light begins to be necessary. (No doubt the late afternoon fatigue is an additional factor in such accident-production.) A badly-lighted shop, moreover, will become dirty and unwholesome.

And passages are oftentimes badly lighted so that workers stumble over obstacles; when one is carrying molten lead, for example, the matter becomes no trifle. Pretty nearly as bad is it to place a bright light in front of some obstacle; so that the latter shall be in shadow, whilst the light glares into the eyes of anyone approaching. A man walked off a platform and was killed, because his eyes were dazzled by a light set to prevent just such an accident.

The normally functioning eye, like any other organ that is properly used, tends to increase in power and facility with right usage; if overstrained or ill-used it becomes progressively less and less able to do any work at all. This precious organ is really an expanded portion of the brain; more than that, the eye affects the working of other organs and is in turn affected by them. Insufficient eyesight is the cause of most chronic headaches, of some indigestions, and of many conditions of depression or fatigue. These are of course individual misfortunes; but the employer of labor is singularly blind to his own interests to imagine they do not affect him. Apart from humane considerations (which, despite pessimists, obtain generally in business), improper lighting is an economic loss for employers. In shops having insufficient or glarey lighting not so rapid work can be done, besides which the worker must perforce turn out an inferior grade of article.

The proper lighting of schools is of course vastly important. Education now being compulsory, parents have a right to demand that the children whom they send to school shall have their tender eyes safeguarded while studying. Besides, children contract incipient spinal curvature and other afflictions by having to twist themselves so that the light may fall properly upon their desks or the blackboard. Lighting in the home is also frequently faulty, the eyes being blinded, whilst the page is not illuminated as it should be.

America is the pioneer in illuminating engineering; yet even we it seems, have much to learn, and more still to put in practice, when it comes to the right kinds of artificial lighting.

Dr. Harvey W. Wiley recently declared in an address that we have, in America, the most abundant and palatable food in the world, and yet spoil more of it in the kitchen than any or all other countries. Good food and good cooking are preventives of divorce. Who ever heard of divorce in rural France, where the women know how to cook? You can no more drive a man away from a good table than you can a cat; and if you do he will come back—the same as the cat. The way to keep husbands at home is to feed them well. Old age is the only disease a respectable person should ever die of. If we would go back to the simple life—and good cooking—we could all live much longer than we're going to.

THE GERM OF INFANTILE PARALYSIS.

ANOTHER beneficent discovery is added to the brilliant series issuing from the Rockefeller Institute for Medical Research, wherein Flexner, Meltzer, Carrel, Noguchi, and others have solved and are solving problems that have baffled medical science since, and before, Hippocrates. Flexner and Noguchi have now demonstrated the germ of infantile paralysis (epidemic poliomyelitis). This disease has long been suspected, nay it has been proved to be, infectious; but the revelation of the germ essential to its development has until now been wanting.

A child convalescent from some previous ailment and thus susceptible to any infection—indeed, a child seemingly in perfect health at bed-time, may awaken the following morning with symptoms of illness, conspicuous among them being paralysis of groups of muscles or of an entire extremity, which becomes flaccid and unresponsive to the ordinary reflexes. The origin of this phenomenon lies in the gray matter (*polio-myel*) of the spinal cord, where are the nerve centres dominating the body's muscular action. These centres, on account of the unusually direct arterial supply to them, are peculiarly exposed to the action of germs circulating in the blood.

A great deal of experimentation has been done by Flexner and other workers to find this germ; their efforts were thus far frustrated by the unusual smallness of the offending parasite. However, a year ago, in cultures made from the nerve tissue of children that had died of infantile paralysis and from such tissues of inoculated monkeys (those biologic brothers of men) the specific virus was isolated; and the proof of this isolation was that monkeys into which the virus was injected, contracted the disease and developed the characteristic paralysis.

But now, by methods most patiently perfected, the germ itself has been identified, isolated, photographed, artificially grown in pure culture, reproduced in successive generations, and implanted in monkeys which have manifested the usual symptoms. All disease-engendering germs are invisible to the unaided eye. (How thousand-fold more destructive to humankind have been such agencies than its tangible enemies); but the germ of infantile paralysis is infinitesimally microscopic and is globular in form, hanging together in short chains, pairs and small masses, devoid of independent motility.

Thus, having now found the germ, we may well hope (since laboratory experiments have a way of being superbly reduplicated) that an immunizing and probably also a curative agent against infantile paralysis will be evolved. Furthermore the study of the various modes of contracting the disease will be facilitated, and the difficulty of detecting it will be obviated, because every doubt will be removed by the demonstration of the presence of the specific germ. Thus has medicine established another great triumph: Tender children will not so frequently die of epidemic poliomyelitis; and such little sufferers as survive will not continue through life with limbs shrivelled and powerless for their office. Here again will be reason for mutual gratulation by all humankind—except the anti-vivisectionists, who will, of course, remain disgruntled.

THERE is a maxim ascribed to Theognis, according to which "Surfeit has killed many more men than famine," and Hippocrates had an aphorism that "Everything in excess is inimical to Nature." The former maxim finds modern equivalents in "Surfeit slays mae than the sword" (a Scottish proverb from Ray's collection), and a Latin counterpart in "Non plures gladio quam cecidere gula." Two other Latin proverbs put the same idea in different words: "Multo plures satietas quam fames perdidit viros" and "Multos morbos multa fercula fecerunt." A laconic adage says, "Much meat, many maladies;" an outspoken one says, "Quick to the feast, quick to the grave;" and a farseeing one announces that "Feastings are physicians' harvests." The Spanish rhyme "Mas mato la cena che curo Avicena" (The supper has killed more than Avicena cured) is a popular maxim.—*British Medical Journal.*

FEWER LYNCHINGS OF NEGROES.

Dr. Booker T. Washington states that at the end of ten months (Nov. 1 last) there had been 45 people of his race put to death by mobs, a reduction of 4 as compared with the same period in 1912. In those 45 lynchings only 7 or 1.5 per cent. of the victims were charged (justly or otherwise) with rape. In other of the 45 lynchings, such crimes as the following were imputed: being lawless and assisting a criminal to escape; a half-witted negro for frightening women and children: murder which a few days later another negro confessed having committed: for striking an Italian merchant who had swept dirt on the lynched man's shoes. Two colored farmers were lynched, no motive being assigned: one newspaper declared regarding them that "two apparently inoffensive negroes, good farm hands, real wealth producers, were assassinated; another newspaper stated "as far as anyone knows they were quiet, orderly country people." There are now much fewer lynchings than formerly in our South land. Christianity's twentieth century began with its almost daily record of negroes hanged, burned or shot to death; many of these killings were accompanied by dreadful atrocities. Nor were by any means all of these crimes committed in the South. To comprehend lynching aright one must consider crowd and race psychology. Human civilization is evolved from savagery. Slowly and painfully has our race risen to its present lofty plane, slowly have the highest known brain centres, those concerned with intellect, reason, judgment and the like, those gained through the triumph of the *wille zum guten* over the *wille zum leben,* have developed in us. The savage lacks these loftier attributes; his conduct is dominated by lower and more basic centres; it is unreasoning, passionate, impulsive, imitative and instructive; uncontrolled emotion characterizes it. It has indeed taken eons for humankind to have attained civilization; it is one of the ghastliest of phenomena—how almost instantaneously humankind can relapse into complete savagery; how easily, under the dreadful hypnosis of the crowd, the cerebral centres are short circuited and the headless spinal cord holds sway. Thus came about St. Bartholomew's, the Sicilian Vespers and many another blot on civilizations 'scutcheon; to such as these lynching is akin, a savagery all the more likely to occur by reason of race-antagonism, also a fundamental primeval instinct, unworthy of civilization.

In justice to the "criminal" negro one must reflect that some negroes have, within several years past, committed atrocities inexplicable on any natural or reasonable basis. Especially has this been so in mining, lumber, railway or like camps and in cities rather than in rural districts—in places where large industrial operations have been in progress. Nor have the atrocities here referred to been against the sanctity of womanhood; infants and venerable women have been attacked, with most insensate frenzy and with astounding indifference to the sufferings of either their victims or of the "guilty" negroes themselves. Surely the explanation here must lie in the admission made by an official of one of the largest drug houses south of New York that his firm shipped quantities of cocaine to many parts of the South. "The orders come from contractors and operators of the most extensive kind, and the latter say that they could not keep their working forces together for so much as a week, if the men were not able to procure cocaine."

Frenzy endangering cocaine, alcohol, syphilis, tuberculosis, lynch-law; how grateful should the negro be for these blessings of civilization—blessings unknown to him before his acquaintance with that benevolent brother who has been so willing, so eager indeed, to assume the White Man's Burden.

"As one who seeketh to fold a newspaper in a high wind, so is he who argueth with an angry woman."

It is stated that the monocle in use is the mischievous consequences of the irritation caused by this useless glass.

ANNOUNCEMENT.

The publication of the proceedings of the second annual meeting of the AMERICAN ASSOCIATION FOR PROMOTING HYGIENE AND PUBLIC BATHS which was begun in our number of December last, is completed in this issue. Our May number will be devoted to Domestic Hygiene and Rural Sanitation.

MILK.

Milk is particularly prone to deteriorate and to develop multiplication beyond any possibility of counting bacteria, in hot weather. One of the most potent factors making for bad milk is its becoming warmed somewhere in transit from the cow to the consumer's lips—in the sun on a hot back porch or stoop, for example. Milk bottles should be kept closed, both in and out of the ice box, and this food should be pasteurized if there is the slightest doubt as to the excellence of the local milk supply. Indeed, in summer it were best to have all milk (certainly that intended for infants and children) thus prepared. In great cities health departments and such beneficent agencies as the Nathan Straus stations are working effectively for pure milk. Many dairy farms are distributing milk advertised as pasteurized; but where adequate guarantee of the efficiency of this process is lacking the Straus Home Pasteurizer should be used by mothers. This is an uncomplicated apparatus which can be obtained, with exhaustive yet simple directions, in any size, for $1.50. Indeed, any tinsmith can easily make one by following the directions for manufacturing freely given in any Straus Laboratory in New York City. Besides, during epidemics, where all milk in nurseries and hospitals must immediately be pasteurized, this apparatus is an excellent makeshift until a larger plant can be installed; the whole process takes about forty minutes, so that the whole daily supply of milk for dozens of babies can be pasteurized with one fixture.

OVERCROWDED STREET-CARS.

A narrow car; seats filled with persons attempting to read newspapers while the car swings and jolts along its way; aisles jammed with men and women, boys and girls and tiny children, swaying and rubbing, one against the other, coughing and sneezing, pushing and pressing—what a sight for a progressive age; what a sermon for the moralist; what a despair for the student of public health and hygiene! Endless problems are presented by this picture, seen daily in nearly every American city. Most important is the menace to health from the thousands of bacteria, hidden in the throats of diseased men and women, and sprayed directly into a stagnant air, moist and unmoving in the absence of sufficient means of ventilation. Virulent organisms are inhaled into the throats and lungs of tired workers and tiny babes, who form an excellent host for their quick cultivation. The fare for the ride is small, but the cost cannot be estimated in terms of dollars and cents.—The *Jour. A. M. A.*

METABOLISM AND DIETETICS.

The whole subject of metabolism and its relation to dietetics reminds one somewhat of working out a picture puzzle, where not only one picture has been cut up into intricate shapes, but where numerous pictures have been cut up and confused. One worker fits in his little bit, and another his, and a third likewise, and so on, and then some one else discovers that two different pictures are being confused; and so the work goes on until every now and then the master mind comes along and groups the discovered bits aright.—Friedenwald and Ruhräh, "Diet."

ORIGINAL ARTICLES.

THE PROCEEDINGS OF THE SECOND ANNUAL MEETING OF AMERICAN ASSOCIATION FOR PROMOTING HYGIENE AND PUBLIC BATHS IN BALTIMORE, MD.

HYGIENE OF THE FARM-HOUSE AND FARM.

By J. A. Nydegger, M.D., Delegate from United States Public Health Service.

Sanitary laws in great numbers have been enacted and enforced for the betterment of the complex health conditions of our cities. Extensive public health educational campaigns have been carried on in all that pertains to health and hygiene; and in the onward movement which at the present time is being agitated more than in any former period, in behalf of better methods of living, physically, mentally and morally, with the great advances made in hygienics, eugenics and euthenics, the rural and urban districts, which now offer the most fruitful fields for the promotion of hygiene, in all the term implies, seem in a great measure to have been overlooked and practically passed by, with but a few exceptions, and up to the present time, almost forgotten. This has been due in a measure to the engrossing attention paid to improving health conditions in the cities and larger towns, while the country areas have been sadly neglected.

Other factors of importance in this connection are the remoteness of some of the sections from the more populous centers and environs, and partly through lack of knowledge and ignorance of the existing injurious environment, in so far that the rules for correct living and good health have been almost completely ignored.

In further explanaton of the backwardness in the rural health movement, it might be said that the non-investigation into the true status of health conditions in rural communities more thoroughly, has not been intentional on the part of the sanitary and health officials of any State, but partly follows as a result of the lack of interest and knowledge of the inhabitants themselves of the said areas.

If we but stop to consider for a moment, the facts are plainly brought home to us, and more especially to those of us who are somewhat familiar with rural life and rural conditions—that the main source, the fountain heads, so to speak, of a number of diseases, have their origin chiefly in the country, and are there maintained by reason of the more favorable environment, that is, in being more unhygienic and more insanitary, for the propagation and spread.

If we take the average farm-house of people in moderate circumstances, located some distance from a city, we are liable in the vast majority of instances, at least, to find that running water is not supplied in the building, that the all cleansing and health-giving bath tub is wanting, that the water-closet is not placed in the house, but has the highly dangerous substitute in the way of a privy or outhouse, badly constructed, and frequently in still worse state of repair, unscreened and unprotected, located at some point in the yard, or elsewhere when no enclosure is thrown about the house. As we know, a privy or outhouse is designed primarily to prevent soil pollution, and hence to prevent the spread of disease through dissemination, but nearly always is an inferior substitute.

At a result of the neglect of attention to these simple but important, and now well known precautions, flies and other insects after having access to the unprotected outhouse and excreta, readily gain access to the dwelling through the unscreened doors and windows, and convey, the pathogenic organisms of disease on their legs and bodies to the food and drink of the occupants. It is now a well established fact that typhoid fever, to which there is annually sacrificed in the United States alone the appalling number of 35,000 to 40,000 lives, can be obviated to a very great extent by the observation of well known and comparatively simple precautions. Typhoid fever is distinctly a disease of the country, that is, its prevalence is greater in the country than in the city; and it has been conclusively shown that the propagation of typhoid fever in the United States is from the country to the town; and based on a most modern estimate, nearly one-half mil-

lion of people are attacked annually with this disease in this country.

By inadequate, or more frequently, by the absence of screens on doors and windows, malarial infected mosquitoes gain access to dwellings (I now refer more particularly to our Southern States) and infect the occupants with malaria, or vice versa, having fed on those suffering with the disease within, fly forth after having sated their hunger subsequently to bite and infect those who may be unprotected in the vicinity, whether within doors or without, thus resulting in much illness and suffering, loss of valuable time from work, so necessary as a means of livelihood, both for themselves and those dependent on them; a very grave condition of affairs indeed, as compared to the comparatively trivial outlay for providing important means of protection.

In such a farm-house as I have described, the source of the drinking water is usually a shallow well, or a spring, located frequently near the dwelling and also very often near the privy.

Colonel Waring, one of the most noted sanitary engineers this country ever had, has rightly said that a pure water supply is the most important factor in the reduction of death in a community, and the next most important factor after that is the proper disposal of sewage.

With insanitary and unhygienic conditions existing about the farm-house, in the manner as above stated, the result is that the soluble excrementitious matter from human beings and animals, sewage, waste water and slops from the dwellings, whether deposited on the surface of the ground or in a privy, pit or cesspool, assisted by the falling rains, eventually reach the ground water, and seeping through the shallow strata of earth, eventually find their way into the well or spring, and pollute them. In many instances, too, the ground water contains the specific pathogenic organisms of the water-borne diseases, such as typhoid fever, bacillary and amebic dysentery and diarrhea, and in addition to the pollution make the use of the water dangerous for domestic use and a risk to the health; for in using such water, the occupants of the house would be literally drinking their own excreta. Also in addition to the danger of conveyance of the pathogenic organisms to the system in the food and drink by flies and insects, where the privy is not properly closed, or is open at the back, animals, such as dogs and hogs, chickens and ducks, have access to the excreta and further disseminate the pathogenic bacteria contained therein, by scattering the excreta about on the ground and further polluting the soil, and eventually the drinking water, as has just been described.

It is by the above method chiefly that hookworm is disseminated in the South, by soil pollution from improper and unprotected and hence unsanitary privies and other equally as bad methods of disposal of human excreta, as practiced in rural districts —the hookworm eggs being contained in the excrementitious matter.

These shallow wells, which are so extensively in use in the country districts and urban towns everywhere, are the poison of the farms and towns alike, and I cannot speak in terms too strongly in favor of their discontinuance. They easily and quickly become polluted by sewage and excrementitious matter from the nearby house; and illness of a serious nature from the use of the water is frequently the result. We now know beyond longer doubt that the chief souce of conveyance of typhoid fever is the use of impure water for drinking and other domestic purposes, while food and fingers play their part.

Having pointed out briefly some of the undesirable, insanitary and hence unhealthy conditions that exist in and about a farm-house, what rules must be observed, say rather enforced, in the average country home, in order that the occupants may, as far as possible, be protected from disease, may enjoy more hygienic surroundings, and better health may be promoted:—

First—The location of the house is of great importance. If possible it should be placed on high ground, such as an eminence. It should be properly oriented so as to receive the maximum amount of sunlight throughout the day. The foundation should be constructed in such a manner as to keep the ground moisture out of the building. Then the house should be properly provided with a modern water closet and bath, also supplied with an abundance of cold and hot water, complete water connections, and a water carriage system, and be provided with proper provisions for heating, ventilating, and lighting, both natural and artificial. The sewage from the house, including all waste water and slops, should be disposed of in due manner, preferably by the septic tank or the Waring system.

If running water cannot be supplied to the

house in a practical and economical manner, the next best and most accepted method of excreta disposal should be resorted to, and the privy or outhouse must be located on the ground at a safe distance from the rear of the building, and be properly constructed and screened to prevent the ingress of flies and insects, and be provided with pail or dry earth receptacles, which should be emptied at regular and stated intervals, and the contents disposed of under strict sanitary precautions, as by burning, or burying at a safe distance and away from any possible source of water supply.

The water supply of such a farm house should be from a source of undoubted purity, a deep or artesian well, or in case this is not practicable, the spring, if one, should be protected from inflow of surface water, and when from the latter source, the drinking water should as a rule be boiled before using, this precaution being especially carried out during the prevalence of an epidemic of typhoid fever or other water-borne diseases in the vicinity.

In case of the poor rural dwellers whose small houses or cabins are located in the distant valley or in the fastness of the mountains, the risks to the health of the family, frequently ignorant and unlettered, are usually much greater, depending somewhat upon environmental and other conditions.

By reason of the often low pecuniary condition of the occupants (of such houses) the methods of promoting hygiene and safeguarding health in the farm-houses and homes will prove a most difficult problem in numerous instances to handle, and to successfully solve. The same sanitary rules and precautions as heretofore stated will apply equally as well to all, however, though they will perhaps meet with less success in many cases. The poor people of our mountainous countries *as well as* those of the lowlands, *the former numbering* some 2½ to 3 million souls, should not be forsaken and left to their fate, the former representing as they do the only pure American stock, but every effort should be made, as far as possible, to help them, and provide for them the simple precautious and safeguards of health. In this class of farm-houses, too, the subject of lighting, both natural and artificial, plays an important part of the health role. To one unaccustomed to such sights, the fact of families living in houses without windows and shaded in gloom and darkness at mid-day is almost unbelievable at the present time, but one has to go no farther away than the mountains of Kentucky, Tennessee, North Carolina, West Virginia and Virginia and other States, to be convinced of the aforegoing statement. The methods of artificially lighting these homes of the poor are also frequently inadequate and unsatisfactory, leading to eye strains, headaches and other discomforts, and eventually impairing the visual acuity. Poorly kept lamps, lanterns and even tallow dips are the common methods of illuminating these homes.

The manner of cooking and serving the food plays a very important part on the health status of the poor rural dweller, as also often elsewhere. Badly cooked foods deprives the person of much of the nourishment that would be contained in well prepared food of the same quality. This results in lowered vitality and energy on the part of the consumers, and renders them more liable to contract disease. The substitution of the boiler and the pot for the "frying pan" in the preparation of food will prove of much benefit, and will rid many of the chronic sufferers of rural communities from the pangs of indigestion and kindred ailments.

The excessive use of beverages, such as coffee and tea, to which many of the country dwellers and elsewhere, are addicted, has a detrimental effect on health, producing indigestion, insomnia, nervousness and allied disturbances.

The remedy for this is not so much good lamps, as well kept lamps, not so much good quality of food as the quality of food well cooked and the use of the usual beverages in more moderation.

The sanitary privy as described by Stiles and others of all measures suggested to improve health conditions in rural and urban areas, when universally adopted and put into use, will in my mind prove the greatest boon, because of its efficiency, its simplicity and its low cost, thus placing it within reach of all. It is sincerely believed no other sanitary precaution or measure ever suggested will promote hygienic conditions and prevent the dissemination of disease-containing human excreta in rural or urban life more than the use of the privy above mentioned.

The farm too, in the vast majority of instances, is susceptible of many improvements in a hygienic way. Where low lands, marshes, ponds and bodies of stagnant water exist, which might harbor or furnish breeding places for disease disseminating mos-

quitoes or other insects, ditching, draining and filling in will greatly promote hygienic conditions. Damp, low ground has also an injurious effect on health in a general way, by lowering the vital resistance, and thus permitting the contraction of tuberculosis, diphtheria, rheumatism, tonsilitis, and perhaps diarrhea more easily; and dampness acting in conjunction with a decreased amount of sunlight makes the conditions still more favorable to the development of disease, and the harboring of insects which disseminate diseases. Hence the farm-house should not be located in or near a thickly grown-up tract of woodland, but should stand out clear and free from such light-obstructing and insect-harboring sources, although a limited number of trees for shade and ornamental purposes, provided they do not overhang the house, are desirable.

All stables, barns, pig styes, hen houses and coops, should be located at a distance sufficiently great from dwellings and source of water supply to prevent any possible contamination by flies, bugs and other insects by direct contact with the houses and also to prevent surface draining into the well or spring from such places. All out-houses and tenements of whatever nature occupied or used by help or employees should also be equipped and provided in the manner already stated.

All cows furnishing milk for home consumption, or otherwise, should be maintained in good health, in modern sanitary stables. The milk should be taken from them in a cleanly and approved manner in clean receptacles and preserved in cool and clean containers; and at stated intervals the herd should be subjected to the tuberculosis test, to detect any case of incipient tuberculosis.

The manure and refuse from all stables, animals, fowls, etc., should not be thrown out in the open and there left to serve as a breeding place for flies and other insects, but should be received in a dark fly-proof room and there remain until properly disposed of.

Many other subjects, some of a more or less aesthetic nature, which have an important bearing on the promotion of hygiene of the farm-house and farm, such as providing circulating libraries, moving pictures, music, societies, for diversion and amusement, and others, might well here be discussed, but time will not permit.

Having dwelt upon the unsanitary and unhygienic conditions within the farm-houses and on farms, naturally the question is asked: what is the solution of this whole problem? The answer is education in public health matters and the adoption of a state-wide policy of improved health measures. The splendid health organizations in force in some states, cities and larger towns, only need extension and increased scope of action to include rural districts in all of their beneficial operations, while others need to have health departments organized and put on a proper footing of efficiency.

Many of the public health problems of our country are difficult of solution, and will require the outlay of much time, talent and money. The latter is not always forthcoming from the State Legislatures, but with it in hand the other two can be obtained.

As has been said, what is most needed to improve and promote the hygiene of farm-house and farm is the arousing of public interest in all matters pertaining to hygiene and health.

This can be accomplished effectively in only one way, and that is by the public education, by lecture campaigns, talks, traveling exhibits, by interested organizations and individuals; and it is to be hoped soon through the rural district nurse to advise, and under the supervision of State health and sanitary officers, to extend assistance and spread public information on these important matters, bearing so closely on the essentials of rural personal hygiene, which will penetrate the most remote settlements, away from city centers; and by this means, and by utilizing ministers, school teachers, churches, school houses, tents, stores, halls, or possibly in instances, moving train exhibits, that all residents of such districts can be reached and interested and instructed, and be brought to realize that life can be conserved and prolonged by observing certain and not difficult hygienic rules, thus insuring increase of health and happiness and in the end, greater prosperity in any rural community.

The greatest evil to-day in our rural states is undoubtedly the existing medieval sanitation. There are numerous sections in which sanitation in respect to soil pollution and care of milk is only one-tenth what it should be. The recent wonderful awakening on the part of the State Boards of Health and State Boards of Education

in respect to these points in certain sections of our country cannot be praised too highly. The initiative in solving these particular phases of rural needs is therefore taken, but time will be required for the development of public sentiment along these lines among these people, and for the passage and enforcement of State and local laws, that will decrease pollution of the soil and of the water and milk supplies.

District nursing is another sad and crying need of our farm areas. The average country woman, white or black, has exceedingly rudimentary ideas on the subject of cleanliness, housekeeping and care either of children or the sick. To meet the needs of this side of the problem the district nurse seems capable of playing a valuable role. Highly advisable in this connection is the adoption by the States of a universal policy looking to the improvement of methods of care for the sick in rural and small urban communities. A survey of conditions in rural districts will show that in case of sickness in families, the patients will lack more or less of the care which their condition demands. The survey will show that a certain large percentage of those ill could not afford to pay for such care as required. It will also show that hospital and institutional care will be found to be most noticeably lacking, and that of the large number who require hospital treatment, only a small percentage receive it, and still a smaller number of those who should have been admitted to other institutions were thus dealt with. Another crying need which is inadequately met in rural districts is that of housekeepers for families in which there is no wife or daughter to look after the running of the house, or in which she was the person incapacitated by illness.

While this particular mode of procedure is not in line directly with the promotion of public sanitation in rural areas, it has a most important bearing on this problem, and has for its object the bringing about the betterment of the treatment of the sick, and thereby indirectly promoting health in any community whatsoever.

SWIMMING INSTRUCTION IN BALTIMORE BATHS.

By A. S. Lowsley, Baltimore, Md.

At each of the open air free baths, my assistants and I have regular hours at which our school of instruction meets. These stations are four in number and are exceptionally well patronized by the young and old of both sexes, though at separate times.

Departing from the old idea that it was necessary for everyone to learn the breast stroke first, we have endeavored to teach the would-be swimmer to stay afloat with any stroke that seemed to be the easiest for that particular individual.

After a great deal of experimenting previous to my work with the Public Baths, I had decided that the simple stroke called "doggie" is by far the easiest for the beginner and in the Public Bath Classes we have taught it regularly.

Results have justified our adoption of this stroke because we find that the average 12 to 14-year-old boy learns how to swim at least ten yards in four lessons. A great many lads meet this standard in two or three lessons, and it is not at all unusual for a strong boy with nerve to swim at the end of the first lesson.

After the pupil has learned to keep afloat, he is taught to dive and to use the other strokes such as side, American crawl stroke, back, trudgeon and breast strokes. We find that he masters the more difficult strokes rather easily because he considers himself a swimmer and has attached to himself a most powerful ally, namely, confidence.

Pupils flock to our schools in enormous numbers and we sometimes have as many as 175 in a class and necessarily our teaching is done en masse. The particular foot work or stroke is demonstrated by myself or one of my assistants and then the whole group are put in the water and try it themselves. We pass along and correct and encourage where it is needed.

Often with small children it is necessary to teach them very simple things like ducking their heads under water without having a nervous breakdown. Every beginner has to be taught how to kick the legs properly, hold the fingers together and breathe correctly.

We have places for them to catch hold of, then when they can kick so as to keep their feet up, we have them push back a

few feet and dog paddle in to the float. Their swimming distance is gradually increased until they can swim 10 yards. We have set 10 yards as a standard and as soon as a pupil meets this standard we take his or her name, age and address and place it on file, besides publishing the names of all persons who have learned to swim in the paper and issue a certificate of efficiency in the form of this button (which I am showing you) which is usually worn in a conspicuous place, and the proud owner is officially a swimmer. We notice that progress is very much more marked after getting the coveted certificate.

The Public Bath officials have granted me the services of a woman teacher for part of her time who has charge of the girls' and women's classes. My other assistants are voluntary and I secured their services in this interesting manner: When I started out alone on this enormous proposition of teaching a whole city to swim, I saw immediately that I must have help, so I picked out six of the most intelligent of the good swimmers from among my own boys at the various stations and formed them into a club. The constitution of this club states that its object is to encourage swimming in the City of Baltimore, to see that visiting teams receive courteous treatment, and to aid in teaching beginners to swim.

The results accomplished by the lads of the Baltimore Baths Swimming Club, who now number twelve, have been marvelous. They are always on hand and are of the greatest assistance in teaching beginners as they do a large part of my demonstrating for me. They assist in conducting the meets and there has not been a single visiting team stoned or "run" as the local expression is, since this club was organized. These boys enjoy certain privileges and it is considered a great honor to become a member, so there is a great effort made by many boys to gain membership. Last and least they are cracker-jack swimmers and divers and win races.

In order to encourage beginners as well as advanced swimmers, we conduct interstation swimming meats which occur weekly and each of these meets contains at least one event for those who have learned to swim this season.

There have also been efficiency tests conducted for which swimmers when they meet the requirements printed on this card—have received badges presented by the Public Athletic League. As far as I know this is the only place where such efficiency tests are publicly conducted; although I may be mistaken about this point.

At the end of the season a big meet is held for all stations and the rivalry, although friendly, is very intense. This meet is always held at the Patterson Park Swimming Pool, which is conceded by all of our many visitors to be one of the best out-of-door swimming pools in existence anywhere.

At some of our exhibitions and contests demonstrations of methods of rescuing the drowning and the Sylvester and Schaeffer methods of resuscitating the apparently drowned are given and we believe that if even one person remembers enough of either of these methods to save a life, our efforts in this direction will be amply repaid.

Our figures of the numbers taught to swim are not very large because we have only been teaching three seasons and could spend much more time than at present at the various stations very profitably, but being a medical man I feel that my assistants and I have been doing good prophylactic medicine in teaching 2,553 individuals, of whom 559have been girls and women,how to swim at least 10 yards and not to get drowned should they fall overboard where swimming is necessary. We steadfastly believe that our most important work is to teach beginners how to swim and not to produce swimming champions.

The City of Baltimore is practically surrounded by water and by an unusually large proportion of our citizens indulging in pastimes that take them on the water, therefore swimming knowledge comes to be a very necessary part of each one's education and really should be taught in the public schools.

To take care of the swimming activities of a population of approximately 600,000 people, we have four public baths—Patterson, Gwynns Falls, Winans Beach and Locust Point, which are patrolled whenever open by an exceedingly efficient corps of lifeguards who have never lost a case due to drowning since I have been with the baths, although they are called into activity frequently.

There are several private places open to the paying public for swimming, the larger of which are Riverview Park, Gwynns Oak Park, and Bay Shore Park, and there are six strictly private indoor pools in the city, amongst them being the C. Y. M. C. A., Baltimore Athletic Club and Goucher College pools.

As far as I know there is at present no swimming place in or near the city for the 160,000 colored population, but our superintendent, Dr. Beadenkoff, is now working on a plan to acquire swimming facilities for colored people.

Our method of swimming instruction described above has been applied with most excellent results in my work at the Baltimore Athletic Club and Maryland Swimming Club.

In conclusion, I wish to publicly thank Dr. Thos. M. Beadenkoff and the members of the Bath Commission for their hearty cooperation without which our efforts would have but amounted to little.

THE NATIONAL WOMEN'S LIFE SAVING LEAGUE.

By Katherine F. Mehrtens. Read by Mr. Eisenbrandt.

In speaking on the importance of swimming and life-saving instruction for women, a few words on the work of the National Women's Life Saving League might be apropos.

Instruction in this subject, especially for working women employed during the day, seems to have received its first serious consideration in New York City by the League, now in existence about three years. The enthusiasm that greeted the work and the great demand upon it, was far in excess of anything we had expected. We knew that facilities for this work were necessary, but we did not realize how strenuously our efforts would be immediately taxed. Membership applications began to pour in from stenographers, school teachers, clerks, saleswomen, etc., etc., who wished to avail themselves of our instruction, until our membership has reached a thousand.

From this it can be seen that the organization started to fill a long-felt want with very limited facilities.

From our experience, it has been conclusively shown that swimming should be taught to girls and women and is just as important as for boys and men, and that the best results are obtained where the instruction is given by their own sex. Heretofore, this phase was not given consideration, and when the opportunity was presented (by the League) it was grasped.

The subject of swimming must be taken up, sooner or later, as a breach of elementary education in every locality.

The confidence that swimming gives the individual, its health-giving qualities, and the many lives that will be saved annually, when swimming is an accomplishment of every boy and girl, are points for the consideration of every community. The number of drownings that occur every year among women and children, particularly during the summer months, is appalling, and can be and will be immeasurably decreased when our towns and cities through their educational authorities, spread the knowledge of swimming and supplement it with the rudiments of life-saving, in a systematic manner.

Swimming is an art that becomes so fascinating and bears such excellent health-giving benefits, both to women and children, that it is hard to understand how it has been so long neglected in the education of women. No other form of athletics gives such all-around exercise and is so well adapted to women. To the young woman all day confined to an office, or the teacher to her classroom, the saleswoman in the store, the dressmaker and milliner in the shop, and the numerous other varied occupations, a plunge in the swimming tank and a moderate swimming exercise, is a recreation and a blessing, giving her undreamed of recuperating benefits. To the housewife, whose duties keep her so closely at home, an occasional swim is a recreation that she can avail herself of any time of the day when she has a little leisure. And all these wonderful benefits which cost so little to the locality (com-

paratively) and nothing to the individual, and which mean so much from a health and sanitary viewpoint as well, are not yet within the reach of all.

From the foregoing remarks, it can be seen that I am endeavoring to advocate, in every city, large and small, not only the facilities for the teaching of swimming, but facilities for young women to practice swimming during the twelve months of the year; in other words, indoor pools. The amount of good that would result, would more than repay the outlay. In many small towns the regular swimming pool, generally patronized or only open to boys, could then be thrown open to girls also, and a system of instruction inaugurated at little or no expense. An expert swimmer, preferably—a woman who would volunteer to teach others—can generally be found willing to give her services for the benefit of this humanitarian cause. For a start, an organization planned along the line of the National Women's Life Saving League might be established and the importance of the work would soon demand public recognition.

Health-giving athletics for women, conducted by and under the absolute jurisdiction of women, tend to their moral and social uplifting. Promiscuous competition among men and women is not advocated, although this is generally indulged in in the large cities and draws big crowds.

In conclusion, it might be emphasized that the knowledge of swimming, without the additional knowledge of life-saving, loses considerable of its importance. It is therefore essential that as soon as pupils have mastered a few good strokes and are confident of their buoyancy and endurance, that they take up the three main features of life-saving, namely, Rescue, Release and Resuscitation. Not alone is a knowledge of the above a benefit to the individual possessing it, enabling her to better care for herself, but it also creates a spirit of unselfishness in the desire to help others.

The League will be glad to give information on these subjects any time on request.

CLEANLINESS AND HEALTH.

By Douwes Dekker.

A foreigner who witnesses a great spring-cleaning in Holland returns home with the conviction that no people on earth can be compared in cleanliness with the Dutch.

I must hesitatingly confess that the highly praised cleanliness leaves much to be wished for, as far as it concerns the cleansing of the skin.

It was chiefly physicians who drew attention to it, when the military surgeons examined the conscripts and those who had to examine women who applied for places at the Government schools. The causes were sought, and they were manifold. With some it was laziness, so-called religious opposition against so much worldly-mindedness with others; other people did not think it decent to undress themselves entirely, and last but not least, the want of opportunities to bathe, especially in winter. An inquiry made into the matter brought to light that although there were bathhouses where people could get a bath at the cost of 20, 30 and 50 cents, the baths were entirely beyond the reach of the lower classes except in Maastricht, Arnhem, Nymegen, Twolle and Deventer, where baths were to be had at moderate prices.

And so some twenty years ago the public baths were erected by the devotion and sacrifice of a few persons, where people for 6 cents could get a warm and cold rain-bath, soap and towel included. Dutchlike, things were however prepared too carefully and much too slowly. So things were dragged on until the year 1889, when some public-spirited and philanthropic men un-

der the initiative of Dr. Ruysch, formed plans for the foundation of an association with the purpose to procure warm rainbaths for the lower classes at a moderate price. From these discussions there arose after numerous requests and often vain efforts to get help and financial support from well-to-do inhabitants, the first public bathhouse in The Hague, which was opened in 1892 for the public.

The idea that it was necessary to procure cheap baths to the less fortunate classes of society soon found its way beyond the court capital and in a short time several establishments were erected in other towns.

The association which in the beginning had to fight against great opposition, began with 63 members. It now has 800 members among whom 12 city councils, 64 boards of health and several associations, amounting to thousands.

It advanced slowly and the work required an extraordinary perseverance to surmount all prejudices. People thought it quite useless.

Fortunately the experiments of the hygienists and bacteriologists came to the aid. They announced and proved that contagious diseases were transferred by *vermin.* It was proved that pest was transferred by the so-called pest-flea, recurrence by a louse, head diseases by head-lice, etc., etc., and that the only real method to fight these diseases is: promoting *cleanliness. Cleanliness* has more power than the quarantine with its severe seclusion and its draconic prescriptions, which means had to yield to the *spraybaths,* which led hygiene in entirely new paths.

Let me give you some examples.

In Petersbourg, where till lately in the night-asylums typhus raged with untamable force, and daily required a great number of victims, the violence of the disease decreased since the use of the baths and the disinfecting of clothes and rooms was compulsory, and finally it disappeared altogether.

A second illustration: In this way was also put bound to the recurrence in the town of Tunis during the years 1910-1912. Before that time the spreading of the disease was fought with sulphur smoke, but without any result. When it became more and more apparent that vermin were the cause of the transferring of the disease an entirely different method was applied. Where the disease appeared all the members of the family of the patient, even the neighbors, were brought to the public bathhouse, rubbed with camphor oil and soaped and douched with a strong spout of water. In the meantime the houses and clothes were disinfected.

In this way the vermin and all the germs of contagion were rendered innoxious and now the disease, which formerly made such enormous ravages has almost disappeared.

With these examples before them the Conference Internationale Sanitaire, 1911-1912, at Paris, did not hesitate to modify Article 8 of the Paris Convention on the proposition of Dr. Ruysch, our president, in such a way that where formerly it was strongly prohibited to approach a pest patient and a mother was not even allowed to visit her child nor a woman her husband. This is now permitted, provided that the visitor takes a bath after his visit and has his clothes disinfected.

The need of bath establishments, which has been proved so irrefutably, gradually gained ground. The desire to exchange of thoughts with others and to find help and support also beyond the frontiers of her country caused our association to venture an attempt to convoke an international conference at the occasion of her 10th anniversary. Her appeal found a ready ear, and she was very much pleased when not only the European delegates from all countries, but also the American colleagues joined and the cities of New York, Brooklyn, N. Y., and Baltimore were also represented.

I cannot leave off here without bringing a message of the Dutch women, who have promised to better themselves. Oh, I would, I could have come to bring it myself, this message, to invite our American sisters to collaborate in tilling the rich soil, which is lying open before us.

For the promoting of public baths and school baths is especially a question of *women.* She is responsible for the cleanliness of the family and the house, whatever position she may have, whether she be the mistress of the house or the servant, a cook, a nurse, a teacher or a sister of charity. People do so much for the sake of charity, but is not health the greatest treasure on earth? Society, her family, her child, her own self require that she go out to preach cleanliness and thus help to promote the establishing of bathhouses.

And now, allow me to thank and to pay homage to those men who have saved neither time nor trouble nor money to embellish our

exhibition at Scheveningen in August, 1912, by their most interesting exhibits, and to support a cause of so great an importance and such far-reaching consequences. May this aid from America, given by Mrs. Tunis Bergen, Mr. Wm. H. Hale and Mr. Wm. Paul Gerhard from Brooklyn, and Rev. Beadenkoff from Baltimore, be increasing forever in our young, newly-founded *International Association for Public Baths and Schoolbaths.*

We believe that no greater work for the social betterment of the people in each land, for the international concord and amity can be done than that of combining all nations in the common task of removing the degraded conditions which have come down from the neglectful past and we are confident that with the advent of a healthier and saner civilization the minds of men will be more open to the higher influences of peace and goodwill amongst men.

We hope that our nations not only remain bound by the old ties but will also fight together under *one* banner and for *one* device: CLEANLINESS AND HEALTH.

MODE OF LIFE MORE IMPORTANT THAN SANITATION.

BY DR. C. HAMPTON JONES, ASST. HEALTH OFFICER OF BALTIMORE, MD.

I believe we have the greatest number of negroes of any other one city in the Union, except, perhaps, Washington. The actual number of negroes is 85,750, according to the mid-year estimate of July 1st, 1912, based upon the United States census of 1910. At one time we thought there were about 91,000, but that was based on the inter-census calculation from 1890 to 1900, but there was not such an increase as we thought.

Now when we look to the death rates, we find that as far as Baltimore is concerned the high death rate of the city is greatly due to the death rate among the negroes. In 1912 our general death rate, including nearly 600 people who came here to die from outside the city and outside of our state, was 18.33. Separating that into white and negro population, we find the white population showed a death rate of 16.05, while the negro death rate showed 29.67. Naturally we look to the improvement of the negro race from a sanitary standpoint to reduce our death rate, but because of the numbers of the negroes, about one-fifth of our population, the reduction would have to be very large in order to reduce the total death rate to fifteen or less.

We find that the cause of this high negro death rate is due to several things. Unfortunately, this city like others, has not made any intensive study of vital statistics. Even the best city in this country in this work has not accomplished the intensive study that ought to be done in order to permit us to say definitely that this thing or that thing actually is the cause of the high mortality. Therefore, we have to speak in general terms and without specific statements concerning the sanitary condition of a city to determine to a certain extent the death rate. We expect a clean city to have a lower death rate than an unsanitary city, but how much of the death rate is due to uncleanliness we cannot say, because filth does not produce disease, and where filth abounds among a large number of our foreign population there you do not find a high death rate. I speak of the Jews especially. They live among conditions that are most unsanitary, and yet their death rate is lower than among our negroes. Here we find the worst condition of any portion of our populace, and yet they are not all so surrounded. But we find the better class of negroes are living under as good conditions as the vast majority of whites, but when we do find unsanitary conditions they are the worst in the city. Undoubtedly with the establishment of the new sanitary sewers, we will be able to effect the death rate among the negroes by the improvement of the drainage from their houses. In many quarters you will find the open privy wells exceedingly close to the house, but I do not believe that that condition actually produces sickness; I do not believe it actually produces death except that when illness is introduced, the death rate is naturally higher.

A second factor that is commonly looked to is the housing of the people, and among our negroes we find they are in houses that are of the worst type, not only in the size of the rooms and overcrowding, but in the amount of sunlight that is admitted. It is not such a great factor as many are inclined to assert.

Third, the feeding of the people, which so closely depends upon the amount of money they can get or the amount of food they can obtain in various ways. As to the feeding, you will find as a rule that they are well fed. You will find starvation or the effects of the want of sufficient food more prevalent among the whites than among the negroes.

These three factors, which I would like to dwell on more specifically in order to show the effect of each one, yet personally I do not believe that they are of such moment as certain other factors that I would call your attention to. Sanitarians are, I believe, beginning to put greater stress on the individual rather than his surroundings. The surroundings of an individual undoubtedly do affect that individual, but the individual's own acts are those which will produce the most profound effect upon him. Therefore, wherever you have a high death rate look to the question of debauchery. Unfortunately a large proportion of our negroes are those who are debauched in one way or another. What the percentage is, I do not know. It is merely an impression one gets going among them that the drinking, the late hours, the excesses of various kinds, must have a profound effect upon them. Then closely associated with this you have the presence of venereal disease. That has not been worked out. I told you when I began to speak that nothing has been worked out definitely, but the impression upon me is that the various venereal diseases are present to an unusual extent among the negroes. They seem to be utterly careless to the presence of such manifestation. And finally we have a special disease, tuberculosis.

Tuberculosis, venereal diseases and debauchery undoubtedly produce an effect upon two special parts of the community. As you know, the lowering of death rate of the city must depend upon our ability to control the death rate among children, and looking to this particular point, we find that in 1911, which was the report I had at home last night, the children under five years of age, and practically it is confined to children under two years of age, there were of the white people 1,964 children who died, of the colored 760. When we take the rate per thousand, we find that the negro children are dying off more than double that of the whites, and this is due, I believe, mostly to tuberculosis, venereal diseases, and debauchery of the parents. Looking to the tuberculosis disease alone, we find that among our negroes the death rate is not lowering at all, the death rate is slowly increasing, and it stands about 5.7 per thousand, while the white death rate is about 1.75. The whites have been gradually going down, while the negro death rate has been gradually going up.

I cannot help but believe that the basis of the improvement of public health, the lessening of the death rate, the lessening of the morbidity must be finally due to the individual's activities. A municipality may, but the individuals of the municipality must be the active agents in carrying out that which is recommended. You cannot by a rule of the municipality obtain good health. You must obtain it only by the people following that rule. Therefore anything that is of actual help, either by its direct effect or its indirect effect, must be hailed with pleasure by all sanitarians, and I do not know anything that has a greater value than the work that you are doing, carrying to the individual the necessity for him to do that which is for his own protection and betterment when you present to them opportunities for cleanliness. It not only gives them the effect of the cleaning, but it also presents to them the moral uplift, the showing them, as it were, a better life which is bound to effect other conditions and therefore finally produce the desired end.

DISCUSSION.

Dr. Baruch:—I cannot altogether agree with all that Dr. Jones has said. I regard the sanitary dwelling as far more important than what the man does himself. Even the poorest people will get along better without the baths, as much as I favor them, than they will get along without sunlight and fresh air. Then, too, tuberculosis, which is the most destructive disease we have to deal with, is due to the absence of proper dwellings and proper environment. As I said the other night, about 60,000 school children of New York have tuberculosis. There bad hygiene fructifies the soil and carelessness of the individual sows the seed, but in any case it is propagated by the individual who has the disease is not influenced by the surroundings. I want it understood that I do not believe that the action of the individual is more important than his surroundings. The great cause of tuberculosis is the facility with which the tuberculosis bacillus thrives in the dark, like all evil things. The sunlight destroys it. Drainage, fresh air, and especially the sunlight are the

chief enemies of tuberculosis. What Dr. Hale said in regard to the Jewish people having a low death rate despite the fact that they live in filthy conditions is difficult to believe.

Mr. Beadenkoff:—I should like to corroborate Dr. Hale. My observation has been that they are very filthy in some places.

Dr. Baruch:—I did not know you were speaking of your own observation. The point is this; that the fact that a good many of these people have survived a long time is simply because they are fortunate enough to have the germ of survival in them. Some people you cannot kill at all. Why is it you see so many healthy looking children in the tenement districts of New York? I contend it is because of the law of the survival of the fittest. That is the reason why those Jews survive. They come from a long-lived race. The fact is that these people have inherited longevity, and that may be the reason that they survive despite their unwholesome surroundings.

Mrs. Jacobson:—These people are new to this country and our civilization, and just as soon as you find that they do become citizens, they usually move to better quarters. They are not content to live in the quarters in which they have been brought up, and they soon learn that the conditions are not conducive to their best interests. You do not find people in the third or even the second generation living in the same kind of quarters.

Dr. Baruch:—In New York many of the people who lived in Hester street when they first came over have moved to Fifth avenue, in the upper part, where Hebrew signs betray their presence.

Mr. Beadenkoff:—I should like to know about that germ of longevity.

Dr. Jones:—I do not like to take up your time more particularly to discuss a matter which to settle would probably take a quarter of a century at least. We do not know, Mr. Chairman, there has been no scientific work of any value whatsoever that would give us a right to make any positive statement as to the effect of housing on health. Every one of us, myself particularly, who am a member of the National Housing Association, wishes to make every improvement possible in the housing conditions and recognizes that it is a factor, which, of course, is closely associated with the sunlight and good food and other conditions. A question of the amount of money, the wages, comes in in the ability to lift all of these factors that are recognized by every sanitarian. There is an absolute dearth of reliable information as to the exact effect of this thing or that on health.

In regard to our friends, the Jewish people, the fact is that among the orthodox Jews, those that follow the great sanitarian Moses, have a longer life, have a lower death rate than any nation here in America. But America is going to wipe out (this is my own personal guess) the Jewish race as such because they are not segregated in any particular section of the town except for a short time, and therefore they are not compelled to follow out closely the laws of Moses. You will find the Jewish people, after they leave the Ghetto, show a higher death rate than when they live among their own people.

Every one must recognize the great value of all of the movements of which this is one, but I for one would like to preach a little about the personal habits of the individual. The orthodox Jew is not debauched in any sense of the word, and furthermore they nurse their own children.

TRANSACTIONS CONTINUED.

WEDNESDAY, MAY 14TH.

Mrs. Mary Jacobson of Newark read a paper on "Campaign Work for Promoting Public Baths" with lantern slides and moving pictures.

Mr. H. C. Mueller of Trenton, N. J., read a paper on "Tiles, Its Sanitary and Decorative Value in the Construction of Publis Baths."

The several papers were discussed at length.

The president was appointed a delegate to represent the association at the meeting of the International Association for School Hygiene to be held at Buffalo on August 25th to 30th.

The three delegates to the International Conference on Public and School Baths at The Hague read their reports.

Abstracts of Dr. Gerhard's and Mr. Beadenkoff's report on page .....

Dr. Hale's report was printed in The Sun, one of the city publications, and in the New York Sun.

Mr. Charles A. McCall invited the association to hold its next meeting at Newark, N. J.

AFTERNOON SESSION.

Papers were read by Dr. William H. Hale on "A Municipal Department of Public Baths and Gymnasia."

"Relation of Public Athletics Work to Public Baths," by Dr. William Burdick, Director.

"Recreation Commissions of Large Cities," by H. D. Tutweile of Indianapolis, Ind.

MEETING ON THE 15TH MAY, 1914.

Mr Mueller presented a resolution favoring School Baths. Carried.

Mr. Windolph handed in a proposed amendment to the Constitution, abolishing the office of Permanent Secretary.

Papers were read by Dr. C. H. Jones on "Sanitary Conditions Among the Colored People."

"Hygiene of the Farm House and Farm," by Dr. J. A. Nydegger, delegate from the United States Public Health Service.

"Public Swimming Institution in Baltimore," by A. S. Lowsley.

"The National Woman's Life-Saving League," by Katherine F. Mehrtens (read by Mr. Eisenbrandt).

"Cleanliness and Health," by A. M. Douwes Dekker, Secretary Nederlandsche Vereeniging Voor Volks- en Schoolbaden.

To fill vacancies caused by expiration of their terms of office a nominating committee was appointed and their report was accepted, the following being elected:

President, Dr. Simon Baruch, New York.

Vice-President, Mr. Thomas M. Beadenkoff, Baltimore, Md.

Secretary, J. Leonard Mason, Newark, N. J.

Newark, N. J., was selected as the next place of meeting on May 12th, 1914.

Resolutions of thanks to the Mayor and Aldermen, the Bath Commission and people of Baltimore were offered by Mrs. Mary Jacobson and adopted with enthusiasm.

THURSDAY MORNING, MAY 15TH.

Mr. Beadenkoff:—I should like to suggest that this association make two recommendations, that the importance of school baths be urged on cities that have none—

Mr Muller:—I just want to say one thing more. My opinion is that instead of trying to do too much we should start in with one thing. I have often seen a good proposition killed by trying to cover too much territory. If you try for one thing you are more apt to be successful with it.

—I understand that the resolution as offered is intended to include all schools in the United States. It has just come into my mind how these baths should be extended to rural communities. There is no water in rural school buildings, and what water is used for drinking and washing purposes is carried in in a bucket. I think the resolution as offered can only extend to the cities and larger towns, because the conveniences of rural schools are not so that the baths could be used.

Mr. Windolph:—I would like to move that a committee on arrangements be appointed to publish the proceedings in pamphlet form for distribution among our members as well as the general public.

Dr. Hale:—It is a great undertaking to publish these proceedings in proper form and shape and it would devolve upon the permanent secretary in this case. Another thing is the lack of funds. We cannot publish all the stuff we have. The editor must designate and differentiate and he must cut his cloth according to his measure, he must spend what money he has in the most judicious way. Mr. President, I offer an amendment, that we submit the publication of the proceedings to a committee on publication with Mr. Beadenkoff as editor.

Mr. Beadenkoff:—I am willing to do what I can toward it.

DISCUSSION OF DR. NYDEGGER'S PAPER.

Dr. Baruch:—Whenever an officer of the United States Public Health Service talks on sanitation, you may be sure that the subject will be so thoroughly illuminated that it doesn't require a trained mind to understand it. This paper is a very practical and useful one, and I should like to hear it discussed.

Dr. Sherwood:—There is one question I should like to ask. I was particularly struck with the facts brought out with reference to the need in the rural farm houses of the sanitary privy. At a recent exhibit here at a meeting of our health committee of the State Medical Society, we had the

models of these constructions presented. I was wondering whether there was any possibility of bridging that long chasm between the scientific knowledge of a need and the putting into practice the knowledge that we have. We suffer so much, it seems to me, from inertia, and the question I should like to ask is whether there is any power in the health bureau which you represent or in any national health bureau to enforce the construction in rural communities of such sanitary privies.

Dr. Baruch:—The chair would like to add, if no one else will speak on the subject, that there is nothing in this paper that really requires discussion. It is so plain and easily understood that it would be refining pure gold to say anything about it. I would only make one remark about the drinking water. The facilities for sanitation should be made fool proof, a thing that is very difficult to do. We have had a paper at this meeting which will help us to make the water fool proof. The suggestion I would like to add is that these simple-minded people might be instructed to have a clean pail to use for their drinking water, to have a piece of clean bagging, of which they have large quantities, made loosely for a cover over this pail and let some child pour the water through this filter into this pail, and then afterwards add a quarter of a grain of hypochloride of lime to twenty-five gallons of water. I think in that way you will destroy all germs and make it practically fool proof.

Mr. Beadenkoff:—May I ask another question? For the smaller towns, about which you spoke, this portable bath construction has been criticized because it requires a large water supply, or a supply of an inch or two of pretty good pressure to run it. Many of the farm houses are supplied only with wells. On that account, I suppose, it is not possible to make more provision for the flow of water, unless you have a tank, and that must be built at the proper height. I believe it is one of the defects of many of the smaller towns that the water supply is not sufficiently strong to sustain what we are here more especially for propagating, that is, teh use of shower baths among country people.

Mr. Nydegger:—In reply, I am sorry to say there is no such law that I know of which compels the inhabitants of any State or community to supply such sanitary privy or outhouses. The public health service always stands ready to assist as far as possible and as far as within its means by co-operating with State departments or municipal health departments in instructing and telling the people of these communities how to supply these precautions. This sanitary privy is a very inexpensive building, the material going in it can be provided for a few dollars' outlay and any man or boy could construct the building and could make a perfectly sanitary building if it is placed and provided with receptacles for the disposal of excreta. The whole thing depends on the management.

In regard to extending aid to people in rural communities, there is a movement on foot now, there is a bill before Congress providing for an appropriation of $25,000. This will be used in the mountains of Kentucky, Tennessee, and possibly West Virginia, in trying to help these people, who are badly afflicted with trachoma. It is the idea to send me down there with portable hospitals and provide treatment for the people with no cost to themselves. Trachoma is a disease of the lids, a very highly contagious disease, communicable by means of towels, handkerchiefs and fingers from one person to another. Trachoma at one time was brought into the country mostly by aliens, but we now find there is quite a lot of it in our own country, and particularly in the mountainous districts of some of our Southern States. This disease when once contracted is very slow to get well, and in some cases leads to blindness, in all cases to some impairment of the vision. It may require a year or more to get well, some cases are incurable. When the disease goes on the ball proper, you have loss of vision.

Mr. A. S. Lowsley:—Written.

Mr. Jackson:—Have you ever found anyone who could not learn to swim?

Mr. Lowsley:—I have found a few men who said they had tried to swim all their lives, but I have not worked with anyone consistently, who if they had stayed with me could not learn to swim five or six yards.

Mr. Beadenkoff:—The pool at Patterson Park is only three and a half feet deep at one end so that it is safe for little children. Mr. Lowsley gets into that large pond or enclosure and teaches the boys in that swimming school. We are very proud of the fact that one of the boys who was a learner in these classes saved his brother's life. They were together at a little picnic and a little fellow, the smaller of the two,

fell overboard, but the older of the two jumped in and pulled him out. He had learned to swim at Patterson Park, and he knew he could pull him out. I remember the wife of a pastor of a church near the park, I think she was a woman of about forty-five, went there to learn to swim. And she did it. I do not know how many lessons she needed, but it shows that the time of learning is not only for children.

Mr. Grasty:—Have you any plans for the colored population?

Mr. Beadenkoff:—I am sorry that at present the only provision made for the colored swimming in Baltimore is the indoor bath, but the colored men and boys are, of course, equally entitled to visit our baths.

Resolutions read by Dr. Gichner. (Resolutions to thank the Mayor and City Council and city officials, the Public Bath Commission, and the United States Public Health Service, etc.)

The Nominating Committee reported the following officers:

President—Dr. Baruch.

Vice-president—Mr. Beadenkoff.

Recording Secretary—Mr. Mason of Newark.

Treasurer—Mr. Windolph.

Member of Board of Directors—Dr. Gichner.

These gentlemen were duly elected. The office of Permanent Secretary having been abolished, no nomination was brought in.

THE HYGIENE OF THE CARBOHYDRATES.

By John C. Warbrick, M.D., Chicago.

The various classes of foodstuffs taken into the body from time to time to serve as fuel for its sustenance after being masticated and changed by the active processes seem to still come under the same three headings that have stood for many years, namely, the Proteids, Carbohydrates and Fats. This division it would seem is not likely to change for a long time to come, while the continued discussion goes on as to what kind of food is best for one's physical being to keep it in good health, that from the animal or vegetable kingdom. It would seem almost an easy matter to be able to decide what is the proper kind of food to take from the great variety to choose from, however, this is not exactly the case, and it is hardly to be wondered at on account of the differences in temperament and peculiarities of individuals, as, for instance, in one case it is known a certain man has never been able to eat fish of any kind although he is in good physical health, while others can eat fish and prefer it to almost anything else. When the statement made by some authorities goes broadcast that children can eat all the carbohydrate food they wish in the way of all kinds of candies without restriction, it seems to me the investigators working along this line have made a serious mistake.

In my opinion one of the quickest ways to injure the health of children is to allow them to eat all the sweets they desire without any regulation; in fact, it is a mistake to stuff children with any kind of food, to say nothing of candies, for there is more danger in over feeding than in under feeding, if I am not mistaken, especially in the earlier ages of childhood when the tissues are susceptible to changes.

If children eat all the carbohydrate material they wish in the way of sweets, they will not only contract bad habits but run the chance of injuring and undermining their constitutions for life, unless some regulation is followed as that is not a good way to begin with a child for life's journey.

Many children will be eating sweets all the time whenever they can get any, thus gorging themselves upon many occasions; ruining their teeth and digestion, for it is well known that children always have a

special liking for the sweet material. Now sweets of all kinds are composed entirely of carbohydrate material or fuel for heating the body, so when taken internally in large or small amounts especially in between meals and on an empty stomach, tend to overheat it, cause headaches, malaise, neuralgia, toothache and enervation of the body. Carbohydrate material as a diet alone or in excess in any form acts as an irritant to the mucous membrane of the stomach and causes catarrh and disturbances of the sensory nervous system; in fact, this may be one way to cause an eczema or produce a psoriatic condition of the body.

Yellowness and paleness of the face is caused by this food while a tired, languid feeling is soon brought on because it does not strengthen, but heat or overheat or burn, it may be said, too much while a person is more susceptible to cold for that reason and coughs or bronchial trouble are also brought on along with other things.

If older people can be affected by an excess of carbohydrates in various ways what effect must they have on growing children and more so those inclined to be delicate? What happens to children fed too much on hot bread, hot cakes, pastry and sweets for a short time? Ill health, nervousness and loss of vitality. Who cannot remember an instance of some child feeling sick from being stuffed with too much hot bread or sweets and complaining of a 'tomach ache?

Now feed a dog entirely on carbohydrate or starchy material non-nitrogenous food and what happens? It will soon emaciate and die in a short time, for its tissues are not renewed by this food nor strengthened, but it may be said burnt out.

Now give a man the same kind of a diet and he will soon waste away and die for the same reason.

Then if children are allowed to eat all the carbohydrate material they want, it is readily seen what the effect is going to be on the body in time.

Nitrogenous food, of course, is always required to renew the tissues which become wasted and worn during the activities of life.

To take one class of food all the time as a diet whether proteids, carbohydrates or fats, is not good as a mixed diet of all kinds of material seems to be the best for the body welfare, both mental and physical, then it gets all the elements necessary for its maintenance and functioning children will be almost certain to take enough carbohydrate food in the way of good or bad.

White bread, pie, cakes, sugar, etc., to do them harm without indulging freely in all kinds of sweets as they please for any length of time, eating them at all hours and in between meals which is bad. It is much better to take candies or sweets of any kind after a meal, the noon or evening meal being better than in the morning on top of some food, instead of taking them on an empty stomach because they then become mixed up with the food in the stomach and do not exert any injurious effect, but to eat them at all hours of the day, either for grown up people or children is bad, as the stomach is never empty, never gets a rest, in other words, the body is coddled into ill-health from repletion. A bad carbohydrate combination that is taken regularly almost every day by hundreds of people who eat quick lunches is that of pie, coffee and doughnuts. This, if continued any length of time, would soon cause irritability and nervousness, as it contains little or no substantial nourishment for the body tissues.

A much better combination would be coffee, a baked apple and toast or rye bread or a rye bread sandwich, while there are many other combinations that are far better to take which do not produce any ill effects. Some sweets are all right in their place, but the proper use of them is one thing and the abuse, another.

It would then seem a mistake for any one to advise children to eat all the sweets they want without any restriction whatever as to amount, time of day or any definite rules regarding them.

RURAL SANITATION.

THE CONSERVATION OF AMERICAN FOOD PRODUCTS.

By M. E. Pennington, The U. S. Department of Agriculture.

No other civilized country wastes foodstuffs as we waste them. If all the crops that the farmers raise were utilized; all the meat animals that are killed eaten; all the fish that come into the nets marketed, hundreds of thousands who are now hungry would be well fed and the agitation on the subject of high prices would not attract much attention. Conservation of foodstuffs, in its broad sense, means not only the saving of the excess production of flush seasons for the seasons of scarcity, but it means also the systematic, scientific care that prevents wormy apples, or windfalls, prevents the fermentation of carload after carload of corn, prevents the rancid butter from the dirty farm, or the rotten eggs, or the tainted chicken.

The toil of the farmer results in the production of foods. Faulty handling, from the time the apple is ripe, the egg is laid or the fish caught—for in essentials our fishermen are comparable with our farmers—reduces enormously the amount which finally reaches the consuming center, and lowers to even a greater extent the quality of a large proportion of that which is saved from the crematory or the dump.

Go to any of the market terminals in this city on a summer Wednesday or Saturday, between 12 and 4 a. m., and see for yourselves the wastage of vegetables because of decay, low quality, or market gluts. Look at the spoiled poultry during a warm autumn such as we experienced last year—thousands of pounds of it. What are we doing, as broad-minded, intelligent citizens to acquaint ourselves with such facts and to assist, intelligently, those who are more directly charged with such responsibility?

For centuries we have conserved meat by smoking or salting, fish by smoking and drying, winter vegetables by earth cellars. Our great canning industry has so improved and developed the elemental principles of the housewife's "preserving" that it has literally resulted in altering the face of the earth. Man now lives, healthfully, where he could not live heretofore. Canning foodstuffs has also served to equalize the seasonal supply, and is truly conservational. Latest in its development and broadest in its benefits and conserving power, has come refrigeration—again a great industrial development from the housewife's springhouse, or cellar or ice house.

To refrigeration, more than to any other single factor, must we look for the elimination of decay, the preservation of quality and the conservation of perishable products. Like "smoking," which means the preservation of the meat by the combustion products of wood; or "canning," which means that bacterial life is killed by heat, refrigeration must be specially and accurately applied if its maximum benefits are to be obtained. It must be combined with "good handling," as the broad phrase goes; that is, the perishable article must be put under refrigeration while it is sound and fresh, just as it should be canned while it is sound and fresh. National and State and municipal agencies are now endeavoring to inculcate improved methods of handling foodstuffs at the source of production, and frequently refrigeration is an absolutely necessary part of such methods. The railroads are adding refrigerator cars by the thousand each year, to haul these perishables safely. Refrigerated terminals are being built to receive them, refrigerated warehouses in which to hold them until they are needed.

Only one thing intervenes to prevent refrigeration as a conserver of both quality and quantity of food products from being the greatest price-equalizing agency that we at present possess, and that is the ignorance of the consumer of the source and time of the production, transportation and storage of our food supplies. The cupidity of the dishonest tradesmen is fed by this ig-

norance. If the consumer does not wish to eat refrigerated products he should not be compelled to do so. But he will find that his winter bill of fare will show an overwhelming preponderance of salt pork, corned beef, carrots, turnips and potatoes. If he is to continue to have the cream of all the seasons the year around he must accept them preserved by sterilization or refrigeration—more especially the latter. And to obtain to the full the benefits due him, he must have a more intimate, more exact knowledge of whence, and how came the food to the markets. He must lend the aid of his knowledge toward the solving of the food question, part of which is the saving of waste and the equalization of supplies.

GOOD STUFF.

THE *Wolcottville Herald* is strongly edited, and the proof lies in the following editorial in a recent issue.

KEEP THE TOWN HEALTHY.

The life of this town, like the life of a human being, should be held sacred by everyone who calls it home. This town, like the human being, needs nourishment and care if it is to become a factor in things material. A town is as likely to become ill, so to speak, as a man, woman or child. Who is to help it regain a healthy and vigorous condition, if not those who make it their home? The ills of a town are, for the most part, of such a nature that they can be prevented and those which are not can be cured. There is a remedy for every disease likely to inoculate a town.

Physiology teaches that cleanliness is a necessary adjunct to the health of the human body. This is true of this town. How about refuse and garbage? Is your backyard or alley such that you are not ashamed of either? Disease and sickness lurk in unclean places. How about the streets? would you travel over a bad street or road if there were a better way to go? If your neighbor had a truck farm from which he planned to sell you and your other neighbors his produce, and you and your neighbors sent to the city for your vegetables, could the truck gardener continue to raise produce? If your home merchants have purchased goods and brought them here for your convenience and you send to the city for the very same articles which the home merchant carries, can he consistently continue in his efforts to serve you?

Help this town to keep healthy, contribute your share toward the improvements necessary to make this town a beacon light—a leader instead of a trailer. If this town is good enough for you to live in it is unworthy of you to refuse to help in keeping it healthy.

PLANNING THE FAMILY MEALS.

THE foods which best serve certain food needs are discussed in a new lesson in the reading course for farm women given by the home economics department of Cornell. This lesson is called "Rules for Planning the Family Dietary," and it tells the housekeeper what foods to use to provide her household with the proper amount of energy and iron. Milk, eggs, meat, legumes, cereals, make living tissue grow; cereals, legumes, fats, sugars, and starches yield energy; milk, legumes, and whole cereals supply lime; eggs, legumes, oatmeal, vegetables, and fruits produce iron. Mild-flavored, non-stimulating, simply prepared, and easily digested foods should make up the main part of every meal. Eggs should always be used, when they can be afforded—a wise consideration. Much water should be consumed, and fruit and vegetables used liberally. Cereals and cereal food which include the outer layer of the grain are better than those that have had this layer removed. And always, the age, vigor, and activity of the individual should determine the strength of his food.

THE LEISURE HOUR.

HISTORY, PHILOSOPHY, FICTION, HUMOR, SATIRE, POETRY.

LEISURE HOUR WAS FOUNDED IN THE BELIEF THAT THE PHYSICIAN IS BUT HUMAN; THAT HE LOVES THE BEAUTIFUL IN THOUGHT AND SENTIMENT AS EXPRESSED IN LITERATURE, AND THAT HE IS AT TIMES SURFEITED WITH TECHNICAL MATTER. SHORT, CRISP CONTRIBUTIONS ON ANY OF THE SUBJECTS NAMED IN THE SUB-HEADING ARE INVITED TO THIS DEPARTMENT.

AMBIDEXTERITY.

THERE are educators who would train children to be ambidextrous; this is a mistake. The best thing of all is to be right-handed; the next best is to be left-handed; the least desirable of all is to be either-handed, except in certain trades and occupations. In man's age long evolution it is, generally speaking, by his good "right hand that he hath gotten himself the victory" over the elements and over the brute creation. The lower animals are ambidextrous. All four feet being used for locomotion there is no lateral differentiation of function. A cat strikes at an insect indifferently with either hand; a squirrel holds a nut impartially with both paws. Even monkeys and gorillas, which of all animals use the fore-paws mostly as hands, there is ambidexterity, with no preferential use of one or the other paw. Among unfortunate microcephalic people, in whom the small headedness is due to arrested development, ambidexterity has been found to reach a proportion of fifty per cent. Our Bronze Age and Paleolithic Age ancestors were right-handed, as were also the earliest human beings of which geology or human history gives us any evidence; this fact is plain in the arts of Assyria, Egypt, Greece.

All nations, tribes, peoples have at all times preferentially used not only one, but the same hand, generally the right; and no one can to-day point out any race that is ambidextrous. The Japanese have been said to be by law and practice ambidextrous; but Baron Komura is the authority that such a statement is unfounded. Most people simply have got to be right-handed. Why? Because of human anatomy, which no human being can change. We are generally right-handed because of the structure and organization of the brain, which prompts, directs and controls all voluntary movements.

The brain has two hemispheres, of which the right presides over the left side of the body; whilst the left hemisphere governs the right side of the body. Why is this so? The nervous system of which the brain is the main part, is made up entirely of nerve cells and their fibres. The nerve cells are the telegraph stations from which the actions of all voluntary muscles are directed; the fibres are the telegraph wires which transmit the messages to the muscles. The nerve fibres, coming from the nerve cells in the brain decussate—that is, pass through each other, precisely as when you clasp your hands together and interlock your fingers; this decussation takes place in the median line of the brain and spinal cord. So that the nerve fibres from the left brain go to the muscles of the right side of the body; and *vice versa*. Therefore it is that functional differences in the two hands and arms are dependent upon differences in the two brain hemispheres, or the "left brain" and the "right brain," as they are called.

In most of us the left brain is more developed than the right, because the heart is on the left side of the body, and thus supplies the left brain more directly and with more blood than the right brain. Some say that the heart was in the beginning exactly in the middle of the body; and that this organ came to move to the left side of the body because our ancestors began to prefer the use of the right hand; others that the heart began to move leftwards, in

consequence of which the race became right-handed. It doesn't make any difference, however, which was the preceding phenomena; we just have to accept the situation as we find it to-day.

A very interesting point here is that the speech centre is for most of us in "Broca's convolution" in the left hemisphere. The right has also its speech centre, but in ninety-six per cent. of us this is rudimentary and inactive. Now, damage to Broca's convolution by wounding or disease deprived the right-handed man of speech; but leaves the left-handed man with speech unimpaired. The latter (man or woman) can talk just as well as ever. But in the left-handed man the contrary holds good; his speech centre is naturally in the right hemisphere; injury to this will deprive him of speech.

Consider further that the hand and arm centres in the brain are intimately united to the speech centres; wherefore the preferential use of the right hand and arm is also due to the leading part taken by the left hemisphere. Thus, for most of us right-handedness is woven in the brain; to change the pattern we would have to unravel all the nervous tissue and mechanism, and make the human body all over again. Go to-day into any regiment. You will not be permitted to use your gun left-handed; you have to be "uniform" with your comrades, and be right-handed in your evolution, just as they are. Here you would have an opportunity to note that right-eyedness is essential to right-handedness. The dominance of the right eye is shown in firing from the right shoulder and sighting with the right eye. Observe a left-handed soldier shooting; the military regulations require him to shoot from the right shoulder, but he will depress the right eye below the level of his piece and sight with the dominant left eye, because he is left-handed.

But, you say, soldiers always have to start off with the left foot first; yes, but this is because the spring, the essential thing in marching, must be made with the right foot. There is a very primitive and natural reason for these military customs, which have prevailed from Alexander's phalanx down to West Point. When men fought with sword or spear and shield, the soldier had to protect his most vital organ (his heart) with his left, his shield arm, and he fought aggressively with his right, his sword or spear arm.

Another interesting thing is that, in obedience to the universal need of barter, or buying and selling, the primitive practice was counting up to ten. The fingers of the free, the right hand, were used first; and all fingers are now called digits, as are the fingers themselves; and the basis of numbering is the decimal or ten-fingered system. Taking men by and large, the southpaw, the left-handed man, is just as brainy as the right-handed man; but no more so. The only thing not to try to cultivate (with some exceptions) is ambidexterity; that is, to try to be equally deft with either hand. One hand well trained is a great deal better than two hands poorly trained. The ambidextrous man will not be as skilled with either hand as the single-handed man is with his best hand.

Of course there are occupations in which a certain amount of ambidexterity is essential. For example, the pianist, in playing classical music must oftentimes produce the same tones with the left hand as with the right; and he has besides, to work a little harder with his left, because the base notes of the piano are more heavily wired than the treble. This is so in the fugues of Bach and the old masters in music. The surgeon must also be ambidextrous to a certain extent. And yet a double-handed man is likely to waste appreciable time wondering which hand to put to any given job.

Some people who favor education in ambidexterity say that if a clerk, for example, loses his right arm he will be handicapped in earning his living; but in such very rare contingencies education and practice soon develop an adequate growth on the right side of the brain, and left-handedness will naturally follow. Just as with the rudimentary speech centre in the right hemisphere. If a right-handed man gets his speech centre in the left brain injured he can in the course of time get his right brain speech centre so developed that he will be able to talk as well as before. The advocates of ambidexterity maintain that if we develop both speech centres people can talk all the better; it seems to me, in the present state of human affairs (our politics and so on), what is really needed is an improvement in the other direction.

But why, then, is anybody left-handed? In primitive times potentates were rather fond of lopping off the right hand or cutting out the right eye of such of their subjects as offended them. This may help to account for the preservation of the present four per cent. of left-handed people in the world.

THE SMOKE EVIL.

TIME was when a politically appointed smoke inspector reported as follows; "I certify that I have inspected the smoke of this city for the thirty days past. I find plenty of smoke and apparently of good quality. Respectfully submitted—." Efforts for more scientific inspection of smoke, especially as to its insalubrious properties, the economic losses and the discomfort it occasions in great cities, have since been making. There have been prosecutions from time to time by health departments. For example in New York City a company was fined $500 for maintaining a smoke nuisance. An exhibit in this suit was white paper that had been exposed for fifteen minutes in an apartment near this company's buildings; the paper was speckled black, and it was concluded by this showing that living near the plant meant damage to furniture, the ruin of hangings and draperies and—to say the least—personal discomfort. Yet it was admitted on all hands that the offending company had spent several hundred thousands of dollars experimenting with smoke consumers; and it seems every known device had been tried, except one. Photographs of dense smoke have also been effective exhibits in prosecutions for smoke nuisance.

R. C. Benner agrees that the deleterious effects of smoke from the burning of soft coal have not heretofore been very conclusively studied, though thousands, among them captains of industry, scientists and inventors, have been working upon the various and oftentimes perplexing phases of this problem. But Benner now gives the gratifying assurance that a "smoke house" —a laboratory so constructed that it is possible by varying the conditions, to get almost any kind of coal smoke for physical and chemical study—has been constructed in the Department of Industrial research of the University of Pittsburgh.

Smoke can be prevented with concomitant economy of fuel; and there are many forms of furnaces which can be ideally operated to these ends. A serious difficulty seems to be in getting men sufficiently intelligent to operate these furnaces, the wage being small and the work not by any means agreeable. A simple and "fool-proof" mechanism is being devised (states Benner) that will automatically warn the stoker that the smoke his fire is making exceeds the law. Investigations are also in progress as to the amount of annoyance or suffering by reason of excessive smoke that is sustained in dwellings, hotels, hospitals, picture galleries, museums, office buildings, banks, libraries and stores; as to the detrimental effect of smoke upon the "city beautiful"; as to the meteorological aspects of the smoke problem; as to the effect of smoke upon plants, and above all upon human health.

While the relation of plants to smelter fumes and so forth has received much consideration, little has been given carbon, with the accompanying tar-containing phenol and other coal-tar compounds. Benner has found 44% tar in samples of soot. He wisely notes that such carbon smoke might have a very injurious effect upon vegetation, more especially in the Spring, when new leaves and tender shoots are the more readily affected by the toxic action of the soot and the conjoined substances. The all important relation of smoke to human health has probably thus far received very little definite study. Benner hopes that the laboratory will consider the as yet unsettled question whether inhaled soot predisposes to pulmonary tuberculosis. Pittsburgh is averred not to have as much consumption as other cities similarly located, where there is much less smoke and dirt; and there is more consumption in the better residence portions of Pittsburgh where there is less smoke and dirt than in the congested districts, where smoke (as also human misery) abounds. On the other hand "catarrh," pneumonia, and other bad air diseases are very prevalent, presumably by

reason of the irritation of the smoke particles. The ophthalmologists are busiest in Pittsburgh after a heavy fog accompanied by smoke. Benner hopes that these and many another phase of the smoke evil will be scientifically studied in this laboratory; and many physicians certainly, will be interested in the work and will no doubt find great satisfaction in the outcome.

There are all kinds of coal, from anthracite (which gives but little smoke) through bituminous (which gives out more) to lignite which emits a very dense smoke indeed. The use of a given sort of coal seems to be governed largely by the set custom of the given locality; but mostly by the supply of the coal and its cost. Anthracite is found mostly in the Eastern States, where it is least costly; wherefore the authorities of our seaboard cities have been comparatively more successful in suppressing the smoke nuisance. On the other hand, in such cities as Pittsburgh, Cleveland, Cincinnati and Chicago, manufacturers have declared the cost of anthracite prohibitive —that indeed, in any event there is not enough of this coal in existence to serve. So in those communities the use of bituminous and lignite preponderates; in Pittsburgh to the degree at least that washing one's face seems almost a work of supererogation.

It has been assumed that manufacturers have uppermost in their minds not the public health or convenience; but the means by which they can operate their plants at the least possible expense to them. That this is a somewhat gratuitous assumption is evidenced by the example of the Edison Company of Chicago, whose engineers have worked upon the problem with results entirely satisfactory to that municipality and with economy for itself. Burning some 2,000 tons of coal per day no smoke is said to be apparent from any one of the stacks of its central power house.

A difficulty would seem to lie in that most factories and like buildings were constructed before the formulation of scientific principles governing smoke prevention. These buildings have cost enormously; and proportionately costly must the change be if there is to be such smoke prevention as health authorities demand. In most factories coal is said to be burned in such manner that from 25% to 60% of its value ($1 to $3 a ton) is wasted. There is a distinction (which should be considered in any anti-smoke campaign), between smoke prevention and smoke consumption. As to the first, gases are burned in the fire box before they form smoke; and this process should be turned into account in reducing very materially the fuel bill. As to the second point, most devices have thus far been designed for smoke consumption—to catch and burn the smoke in the stack.

A BAD BREAKING-OUT.

A STUDENT in a medical college was under examination. The instructor asked him, "Of what cause, specifically, did the people die who lost their lives at the destruction of Herculaneum and Pompeii?" "I think they died of an eruption, sir," answered the student.—*Christian Advocate.*

JOHNNY handed the following note from his mother to the teacher one morning:

"Dere Teecher,—You keep tellin my boy to breathe with his diafram. Maybe rich children have got diaframs, but how about when their father only makes two shillings a day and has got five children to keep? First it's one thing then it's another, and now it's diaframs. That's the worst yet."—*Tit-Bits.*

NIL DESPERANDUM.—A homely woman has at least eight chances of getting married. In the first place, she may inspire true love in a man whose faults are the opposite of hers; secondly, she may fall in love with a man of faultless proportions, and while in love her features will be so transfigured and beautified that he cannot help returning her love; thirdly, she may meet a man who, for want of æsthetic taste, prefers a chromo to a Titian; or a fourth, who would rather marry an amiable and useful homely girl than a spoiled beauty. Wealth and social position supply two more sources. Accident may favor, through the absence of prettier rivals, giving no opportunities for comparisons; and, finally, she may meet an elderly bachelor who has wearied of his single blessedness and longs for double life (or strife).

NUGGETS.

(From the novel, Over Bemerton's, by E. V. Lucas.)*

I WISH, by the way, that some one would call a flower after me. I should feel that indeed I had lived to some purpose could I, even from my death-bed, raise a weary head and, straining my poor, exhausted, failing auditories, catch the words, "How luxuriantly the Kent Falconers bloom this year!" Thus hearing, I could die in peace.

And the anemone. That is a totally new discovery. I saw for four pence bunches of anemones of a deep purple such as was never heard of in my time. And tulips are even more wonderful. We had tulips, of course, but they were the flaunting type. The new tulips can burn too, but also how sweet and grave they can be; and again, how cheery and courageous! But most of the new colors are wonderful. Sweet-peas we used to call merely sweet-peas and grow for scent; to-day the sweet-pea has a thousand names and colors, and every year, I am told, new and exquisite hues find expression in its butterfly bloom. The delphinium again is a magic revelation. I seem to remember something dingily like it—a larkspur we called it—but that this flower should ever adventure so gently up and down the scale of blue into the tenderest melodies—who could have expected that? The delphinium seems to me the perfect flower against or under a grey sky. It is not till the sun has left that it comes to its delicate own. I like to think of all the care and thought that the great florists have been spending during my thirty years' absence to evolve this lovely apparition against my return.

"Oh, Kent, Kent!" she cried, "when will you learn sense? You are all alike, you men. Your vanity has got to be satisfied. You must assume your own judgment of your own merits. When will you learn that women don't analyze and appraise; women love. That is enough for them—they love. You may want to know the why and wherefore of your feeling for her, and make catalogues of her merits and beauties, and apply the right adjective in order to find out and support your line of action and prove your good taste; but all the while you are doing that, the woman is loving. She doesn't love you because of anything—she loves. She doesn't care whether you are handsome or ugly, or old or young, or cruel or kind, or strong or weak, or conceited or humble, whether you drop your h's, or have nothing in the bank—those things are beside the mark, because she loves."

"I don't agree with you," replied Grandmamma severely. "There is no trouble with marriage. It is very distressing to me to find this new attitude with regard to that state. When I was a girl one neither talked about incompatibility and temperament and all the rest of it, nor talked about them. We married. I have had to give up my library subscription entirely because they send me nothing nowadays but nauseous novels about husbands and wives who cannot get on together."

My belief is that certain persons with soft hearts are doomed to ruin where they would assist. Most of the charitable are wreckers—certainly the check writers are, and certainly I am. I have proved it again and again."

Of course money is really the last instrument with which benevolence, charity, altruism, whatever you call it, works; but most of us put it first. The first really is thought.

I walked home rather thoughtfully by way of the Green Park and St. James' Park. It was a golden afternoon, and there were many lovers, and their happiness made me happy and made me sad. What would have been the result, I wondered, if steady happiness had been set on the throne of this world instead of uncertainty and change and disappointment? How would life have developed had one been born happy and well, and lived happily, and loved happily, and then, when our days were fulfilled, had suddenly died happily? Would it have harmed the race? Have misfortune and disease and frustration and insecurity been necessary to man's ingenuity and industry? Without sorrow should we have had no telegraph? Without tears no camera? Have

*The Macmillan Company, New York.

all the benefits of civilization been wrung from us in some effort to escape the blows of fate? And even if so, might not happiness, without the advantages of progress, have still been better?

(Of Possible Interest to Bachelors Past Forty.)

On lighting my lamp I had a shock; for in my chair was sitting a young man. Perfectly silent he sat, with an ease of manner, a quiet suggestion of possession, that I resented intensely. He wore a loose tweed suit, and held a pipe in his hand. I could not see his face. As he gave no sign of observing my entrance I coughed, and then asked if he were waiting for me, and what I could do for him. He replied that he was waiting for me, but that whether or not I could do anything for him remained to be seen. His voice sounded strangely familiar too, but still he did not move his head, which was a young head with plenty of brown hair not too orderly.

I had a feeling of fear. It seemed uncanny. I advanced nearer, wondering what to do next, when he got up lazily, stretched himself, yawned and looked around. I saw his face for the first time; and held to the table, or I should have fallen.

"Don't you know me?" he asked.

Knew him? Of course I did. It was myself. Not myself as I am to-day, but myself of twenty-one. I now remember the suit perfectly, too.

I continued to hold on to the table and I felt a little sick. I hate and dread the supernatural. But he soon put me at my ease, or thereabouts.

"How are you?" he said. "I can see it is about time I called. Let me look at your face. Yes," he said, after a long scrutiny, "Selfish. You think too much of your comfort. You don't believe in anything; there is a self-satisfied superior hardness in your eyes. You have not cried for years. You profess to feel sorry for people, but your philosophy is stronger than your pity. When did you last do an impulsive thing?"

"Impulse," I said, "is largely a matter of inexperience. I have seen a deal of the world."

"Also," he said, "you're getting fat."

"No," I said, "not fat. That's merely the solidity of age. Remember, I'm getting on."

"Remember," he said bitterly. "How can I forget it? That is why I am here."

"What do you mean?" I asked him.

"Mean. My dear fellow, I have been watching you for years—ever since you dropped me, in fact, and I've longed to get a good straight talk with you; but I wasn't allowed. Nothing can happen till it's time."

"And why," I asked, trembling and chilling a little, "is it time to-night?" (But I knew why.)

"I can't say," he replied, "but here I am. Let's see, how old exactly are you?"

"Fifty-five."

"Is it so long? How do you spend your time? What do you do?"

"Oh," I said, "I've retired. I read a good deal. I visit my friends. I walk about and talk to people. What should I do?"

"But tell me now," he continued, "don't you remember me at all. We were very happy, weren't we?"

"Fairly," I said.

"Have you gone back on everything? All those schemes over the red wine in Soho? We were to do such things. We were to be so keen for the best, and the best only. The best work and the best emotions. We were to help so frankly. We were to do so much to break down the bad barriers among men and women; and now, tell me, what have you to show for it all?"

I didn't feel very comfortable.

"What have you ever done for anyone?"

How can one answer questions like that? I had not been so utterly unhelpful, I knew, but I could not begin a catalogue of my beneficences; it was too ridiculous.

"What have you done for anyone to-day?" he went on. I said nothing.

"Where did you dine to-night?"

"To-night I dined at my club."

"What did you do after?"

"I smoked a cigar, read the papers and skimmed a novel, and then came back."

"Did you speak to anyone?" "No one, except a waiter."

"What did you do all day?"

"I was at my tailor's in the morning; after lunch I went to Lord's.

"And you call that life, with all the world at your feet?"

"Well, it passed the time. I have been busy enough in my day."

"Yes, in a Buenos Ayres counting-house. Did you make money?"

"I have enough."

"Enough for what?"

"For security; for my simple needs, and a little over."

"Your simple needs. Heavens, man, you make me furious. How dare you speak to me of your simple needs and your scrubby little club routine—me with the old abundant programme still on my lips. Can't you put yourself in my place for a single moment and think what it means to see every fine generous resolve gone wrong? How do you suppose it can strike me—yourself at twenty-one, remember—to see such a miscarriage of idealism as you. You, who began so well, and promised to rise so high above the petty ruck; you, who were famous for your fearlessness as a critic of conventions and shams. And now, how do I find you?—an old, timid selfish clubman, poring over the papers in a cold sweat for fear of losing any of the dirty little dividends that give you the hogwash you call comfort and security! To think that I should ever hear you use such a word. It was not in your dictionary in my day."

"Oh, yes," he hurried on. "I know you're a gentleman, and all that; but that's what's wrong. You weren't going to be a sterile gentleman; you were going to be a real man; you were going to help put things right. And now what do I find you doing?"

He paused for a moment. Then he continued his catechism. "Why didn't you come home now and then from Buenos Ayres?"

"I couldn't; there was no one else to take my place."

"Why didn't you give it up then?"

"One does not throw things up."

"No, one does not. One clings to one's little pettifogging habits, and one's mean little salary, even in a foreign land, whilst all that is most real and beautiful and best worth doing is beckoning one away. Prudence dictates the course, expediency controls. And so you turned your back on England and your home for over thirty years. Friends and relations died; it was nothing to you."

"It was everything to me."

"And yet you didn't come home. You went on languidly and happily driving some one else's quill in that state of apathetic indolence which denationalization seems to carry with it, and quietly allowed all that was best in life to slip away from you. I know, because I was there."

"Then why didn't you stop me," I cried.

"Ah, I have touched you," he said, "you have admitted all. I did not stop you because these are the things one has to do without help. I am here to-night not on your account in the least, you have passed beyond my interest, but on account of some one else. Why aren't you married?" he said swiftly. I began to see what was coming.

"Why?" he repeated. "Have you never loved?"

"Not sufficiently, I suppose."

"Don't you love anyone now?"

"How dare you."

"I am here to dare; remember, I've never grown up; daring is natural enough to me. *I* don't ask for security. Do you love anyone now?"

I said nothing.

"You love Naomi," he said.

I said nothing.

"You love her," he repeated, "and—God knows why—she loves you."

"Say that again," I said.

"She loves you."

"How do you know?"

"I know."

I felt horribly giddy again.

"Now listen," he said, and his voice had become kinder. "This is your last chance. Be a man, give us this amiable idling and do something decisive. Marry her; she's the best woman you'll ever meet, and she'll make you work. Marry her, old chap, ask her to-morrow and begin to live again. You've been dead too long."

"Does she really love me?" I asked him; but he had disappeared.

When I woke up I found I was still in my clothes on the sitting-room floor. I crept to bed in a daze.

BOOK NOTICES.

MEDICAL AND SANITARY INSPECTION OF SCHOOLS, for the Health Officer, the Physician, the Nurse and the Teacher, by S. H. Neumayer, A. B., M. D., 71 Engravings and 14 Full-page Plates, Lea and Febiger, Philadelphia and New York.

IT has become a truism that the welfare and the prosperity of any nation must depend upon the health and the stamina of its people; and such health and stamina are in turn conditioned upon the well-being of the nation's school children. Nor can it be doubted that the right period and place in which to detect, at least rectifiable abnormalities and degeneracies in the coming citizen are in childhood and methodically, in the schools.

Such examinations are logically the functions of government. Some of our readers may not agree to this proposition, as savoring of impertinent officialism. Well, when a generation ago it was sought to make school attendance compulsory, there were many who opposed legal enactment to this end as tending to paternalism in government. And as being an outrageous infringement upon personal liberty and the rights of parents. But who to-day would be found to oppose compulsory school attendance?

Clearly something more than has been done in the past is necessary to be done for the health of our school children. Consider a conservative estimate: Of 1,400 New York City children 12 per cent. were found to be suffering from malnutrition; 48 per cent. from enlarged glands; 74 per cent. from bad teeth; 14 per cent. from eye defects; 27 per cent. from nasal defects; 29 per cent. from throat ailments. From such data one must conclude that in the metropolis, at the time of the computation, 48,000 children were suffering from malnutrition; 187,000 from enlarged glands; 230,800 from defective breathing, and so on. One must infer that should those percentages obtain for the rest of the country—as why should they not—twelve million of our school children must be suffering from physical ailments.

Unquestionably then, Dr. Neumayer's fine and comprehensive treatise is a timely work, which should be in the hands of all those to whom it is addressed.

PRACTICAL SANITATION—A HANDBOOK FOR HEALTH OFFICERS AND PRACTITIONERS OF MEDICINE, by Fletcher Gardner, M. D., and James P. Simonds, B. A., M. D. Illustrated. St. Louis. C. V. Mosby Co., 1914. $4.00. In this excellent book, which deals with the most important field in medicine to-day, especial emphasis is laid on quarantine, the grouping of quarantinable diseases, medical school inspection, the duties of health officers, the management of campaigns for the extermination of rats, vermin and insects that may be disease carriers.

DIAGNOSTIC METHODS, by Herbert T. Brooks, A. B., M. D., Second Edition, Revised and Rewritten. St. Louis, C. V. Mosby Co., 1914. $1.00. Here is an indispensable guide for history taking, the making of routine physical examinations and the usual laboratory tests necessary for students in clinical pathology, hospital internes and practicing physicians. A particularly valuable feature is its outlining of case history taking.

EXERCISES FOR WOMEN, by Florence Bolton, A. B., formerly Director of Women's Gymnasium, Stanford University. Cloth, 12mo. Illustrated. Price, $1.00 net; by mail, $1.10. Funk & Wagnalls Company; New York, publishers. This book will amply inform those women who feel the need of some definite, simple and suitable course of exercise that may be done in the home, without apparatus if necessary. Its illustrations are very descriptive of the exercises. It should be decidedly useful to doctors who would instruct their patients, to teachers of gymnastics, and it should be conducive to physical grace and power in women.

HYGIENE AND PUBLIC HEALTH, by Louis C. Parkes, M. D., D. P. H. (Univ. of Lowell), and Henry Kenwood, M. B., F. R. S. (Edin.), D. P. H. (Lond.). Fifth Edition, with 95 Illustrations. Phila. P. Blakeston's Son & Co., 1913. $3.50. In this fifth edition of a most admirable and cyclopedic work, new matter has been introduced and Dr. Elizabeth Frazer has furnished the material for a superb chapter on immunity.

NURSING DEPARTMENT.

EDITED BY FRANKLIN W. BARROWS, M. D.

THOUGH WIDELY DIFFERING IN FUNCTION, THE ULTIMATE AIM OF THE NURSE IS THE SAME AS THAT OF THE PHYSICIAN, THE RELIEF OF SUFFERING AND THE SAVING OF LIFE. CULTURE, HELPFUL INFORMATION AND A BETTER UNDERSTANDING OF RELATIONS, LEADING TO AN INTELLIGENT CO-OPERATION IN THIS COMMON AIM, ARE THE OBJECTS OF THIS DEPARTMENT.

THE CURATIVE PROPERTIES OF A KIND HEART.

How easy it is for one benevolent being to diffuse pleasure around him; and how truly is a kind heart a fountain of gladness, making everything in its vicinity to freshen into smiles.—WASHINGTON IRVING.

THIS is a bit of "new thought" for our special consideration as companions of the sick. It is no newer than Irving, or the gospels, or the prophets, or, for that matter, Adam and Eve. The only thing new about "new thought" is that it would be a new thing for some people to get it.

Can we remember that our patients are sick, or think they are; that they have revealed to us, perhaps unwillingly, the inner secrets of their weakness and sorrow and that we are the custodians of their secrets; that they look to us for strength and encouragement as well as for medicine and baths? If we can remember these things we shall realize the human element in every "case" and we will make it our privilege to radiate human sympathy as we go about the day's work. And so the work will be the pleasanter for us and our friends, the patients, will make better progress toward recovery. This is what some smart people have just found out—and call it *new*. It never gets old.

TRAINING NURSES IN THE UNIVERSITY.

CERTAIN enthusiasts have ventured to predict the time when all our trained nurses will be university made. They seem to see a multiplication of the courses of study open to nurses until every university—and we suppose every college—will be engaged in the good work and every nurse will be obliged to take the course just as doctors must now take a medical course, before receiving her license to practise.

With the possibility of such a state of affairs somewhere in the future, it is interesting to know what one university is doing to provide a complete course of nurse training. We quote from an article by Professor Richard Olding Beard, in the *Journal of the American Medical Association*:

> The University of Minnesota is the pioneer of this significant movement for the better education of nursing-women. In creating a school for nurses as a department of teaching, under direct university control, in charge of the faculty of the medical school and affiliated with the teaching hospital, which is similarly owned and controlled by the university, it has led the entier world, although it has been happily followed, already by two neighboring state universities. The significance of this movement lies not alone in the high standard o ftraining which the university has set, but in the fact that its action tends to remove from the exclusive? control of the hospital, as such, the education of the nurse. Its significance can be measured only by those who have studied the problem of the education of nursing-women from the point of view of the student's educational interest shall be para-exploited for the benefit of the hospital service sounds the note of an emancipation which could not be effected, perhaps, by any other agency.
>
> The essential features of the university curriculum for nurses may be of some interest. The diploma of a high school of the first grade and an actual examination to determine the physical fitness of the candidate, conducted by the physician of the school, are requirements for admission. Preference is given to women of superior attainments. A preliminary course of four months is required, during which the pupil is not in hospital residence, for which course she pays a tuition fee, and which covers instruction from six to eight hours daily, conducted in the laboratories and lecture-halls of the university, in the subjects of anatomy, physiology, bacteriology, chemistry, materia medica, English, penmanship and lettering, physical culture, hospital economics and practical dietetics

—a course with which the student is exclusively occupied during the four months, thus relieving the period of subsequent hospital service of many wearying hours of evening lectures. The superior fitness of the hospital entratn for her practical duties by virtue of her preliminary course of study, has proved itself clearly to those who are in immediate charge of the school. A two-months' probation service in hospital, followed by two and one-half years of graded service and study in the wards complete the course. An eight-hour hospital day and the employment of an adequate number of graduate nurses as long as may prove necessary for the proper conduct of the school are added features of the university plan. On recommendation of the medical faculty the university degree of Graduate in Nursing is conferred by the Board of Regents.

When one considers the haphazard way in which many "leading physicians" impart instruction to the training school classes in their charge—the appointments poorly kept or skipped, and the altogether unpedagogical, unmethodical makeshifts by which they attempt to teach—the plan of this western university looks indeed sumptuous. It is nurse training *de luxe*.

OBJECTIONS TO THE DORSAL POSITION AFTER CHILDBIRTH.

Nearly all midwives and many doctors insist in keeping a woman on her back for the first week or so after bearing a child; probably not one in ten of these wardens could tell, if asked, why this special form of torture is essential to the traditional conduct of the puerperium.

Dr. W. C. Gayler, of the University of St. Louis, presents a very reasonable argument in the *Journal of the American Medical Association* to show that the dorsal position during the puerperium is a most efficient cause of retroversion of the womb. He reminds us that the uterus after delivery is not only large and heavy but more freely movable than at any other time of the woman's life. The ligaments are too lax to support the uterus in its proper place, and the bladder is subject to over-distension which is another potent factor in crowding the uterus backward into a false position, particularly if the woman is lying on her back. The dorsal position, for these reasons, would seem to be the very worst possible position for the woman, because it favors retroversion of the womb as no other position could.

"The involution of the uterus, ligaments, vagina, vulva and perineum is a physiologic act, and should therefore leave no defect or malposition behind it." Obviously, then, it is the duty of the doctor and the nurse to help nature—to give these relaxed and weakened organs a physiologic chance to regain their normal condition. We can learn a lesson from the brute world, as the doctor clearly shows us in his conclusion:

> If we assert that a return to the four-footed manner of life would remove posterior uterine displacements, we state an interesting fact that cannot possibly be demonstrated. If we ask, however, that woman remain off her back during her puerperium, thus taking a lesson of the lower animals, we ask something that is possible of fulfilment. To spend most of her time on her right and left sides, occasionally to be flat on her abdomen, or to assume a position slightly on her side but almost on her abdomen, would seem a logical procedure for at least eight days. Bumm says that the uterus loses half its weight in the first eight days following delivery. The involution of the round ligaments is probably well advanced by that time.
>
> I certainly think that the dorsal position should be prohibited during the puerperium, unless there seems to be an interference with the flow of the lochial discharge while the woman is in other positions.

POISONING BY VAGINAL DOUCHES OF MERCURIC CHLORID.

Again we are warned of the extreme foolishness of the douche habit when the patient's faith relies on the healing virtues of "bichlorid." Dr. Fenwick Beekman, of New York, reports a case, who fortunately recovered from the effects of her misguided zeal, but not until she had consulted the doctor for chronic "Bright's." We condense the doctor's story as told in the *Journal of the American Medical Association*:

For six months this woman, aged 22, had been using vaginal douches of mercuric chlorid in solution of 1:1,000 to 1:2,000, at the rate of four or five times a week. When she consulted the doctor she had generalized dropsy, especially marked in the legs, with

albumin and casts in the urine. She had no suspicion that her trouble was due to the douches until informed by the doctor. She was cured in five months.

An interesting feature of this case is the fact that there were no signs of mercurial poisoning in or around the vagina, and that the poison was absorbed from normal, healthy vaginal surfaces. The doctor adds:

> The conclusion, therefore, is that the indiscriminate use of corrosive sublimate as a vaginal douche may be dangerous at any time and this danger is increased if there be any condition present which would tend to increase retention and absorption of the drug.

PAUPER HELP FOR THE SICK.

When Dr. Craddock became medical officer of the Workhouse at Bath, England, thirty-one years ago, the 230 patients were in charge of a "nursing staff" consisting of an old woman with heart disease and an untrained girl, assisted by "pauper helps." The doctor considered himself fortunate when he secured two trained nurses to attend to this work. As late as 1894—only 20 years ago—the hospital conditions were far from ideal, as shown by the report quoted in the *Hospital*:

> "There was no hot water laid on in any of the wards—every drop had to be carried from a boiler across a court; and at night none was procurable except by boiling a kettle. Most of the wards were dark and squalid, and without any cross-ventilation. Dr. Craddock had managed to effect some slight improvement in the nursing staff, but for over 200 sick inmates, some sixty of whom were confined to bed, only one fully-trained nurse, assisted by two partly-trained women and a girl of seventeen, was available during the day. At night the patients were left entirely in the charge of paupers—two on the male side and one on the female. Dr. Fuller states in his report: 'As a natural sequence, at night, poulticing, when required, the care and cleanliness of the helpless and bedridden, and the administration of food and medicines to acute cases in stated quantities at stated times, are entirely neglected.' There were three roller towels, changed three times a week, for the use of each ward of about twenty-three beds; there was one comb 'somewhere about' for the patients, and 'perhaps a brush.' The bedding was chaff or flock, and the mattresses too thin to cushion the laths of the bedsteads. The medicines were left on the window-sills, and were administered by pauper inmates. In face of all these facts, a committee appointed by the Bath Guardians in June, 1894, shortly before Dr. Fuller's inquiry, to investigate the complaints made by Dr. Craddock, reported: 'We cannot recommend that any addition be made to the present nursing staff of the infirmary.' They supported their conclusion by an argument dear to Guardians even to-day, that other infirmaries were in a worse plight still. Fortunately, Dr. Craddock was not the man to accept the Guardians' decision as final, and his triumph came a few months later, with Dr. Fuller's report, which initiated reforms which have continued until to-day."

THE WORK OF THE SOCIAL SERVICE NURSE IN CONNECTION WITH THE DISPENSARY.

Hospitals and dispensaries are constantly discovering new possibilities in the visiting nurse, and the time has arrived when no large institution in this class is complete without its "Social Service Department" in which nurses perform the major part of the expert work.

Five years ago the late Dr. Musser, of Philadelphia, made a careful study of this line of work as it was conducted by the Massachusetts General Hospital in Boston. He was so thoroughly convinced of the value of this innovation that he organized a social service department as an adjunct to the medical institutions of the University of Pennsylvania. The results of this extension work have been wonderful; physicians have been able to follow up their dispensary cases and to carry out lines of treatment that were simply impossible under former conditions—all because of the coöperation of intelligent nurses and social workers whose business is to extend the influence and authority of the dispensary into the home.

How this good work is accomplished in

the case of the Children's Dispensary is well told by Dr. Maurice Ostheimer, physician in charge of the Children's Dispensary, University Hospital, Philadelphia, whose article appears in the *Journal of the American Medical Association*. In one paragraph he gives the reason why the dispensary, working in the old rut, frequently failed to accomplish the desired results. He then describes the present methods of work, giving many details which will prove invaluable to all nurses whatever their "line" may be.

Advice and directions, although carefully explained to the person who accompanies the young patient to the dispensary, are frequently received with scant attention and sometimes partially or even totally forgotten by the time the child has reached home. Even detailed directions, minutely written out, may never come into the hands of the child's parents. And finally, even if the note does reach the parents, the physician's advice and directions may nevertheless remain unheeded.

It was primarily with the object of having our directions correctly carried out that the social service department two years ago began to work with the children's dispensary. It was soon found, however, what a wide field of usefulness was opened to the visiting nurse and through her not only to the physicians at work in the dispensary but also to the philanthropic men and women supplying the funds to carry on the work.

WORK OF THE NURSE.

When a sick child is observed in the dispensary, explicit directions are given to the trained nurse the same afternoon, sometimes while the child is present, sometimes later. If the nurse is in the room when advice is given, the child will recognize her when she visits the home, as she does within twenty-four hours. The same written orders which have been explained to the child's mother are also given to the nurse. On her arrival at the child's home, she explains the physician's directions fully and with great detail and shows the mother how to carry out each separate order. She sees that the sick child is correctly cared for; instructs the mother in preparing the food properly and in giving water to drink at regular intervals; in the matter of bathing or sponging; in correct bedding, covering and clothing; in nursing, cleanliness, hygiene and sanitation. She shows which windows and doors should remain open; when to leave the child alone for sleep; how to dispose of the excreta; how to keep other persons out of the sick-room—in short, how to make the conditions as nearly ideal as is possible under existing circumstances. If she finds the surroundings absolutely impossible, she reports the conditions to the physician, or in urgent cases makes arrangements for the child's immediate removal to the hospital.

She also learns the financial conditions of the entire family; the sanitary conditions of the whole house; the number of families living in the house; the cleanliness of furniture and bedding; the presence of unnoticed or untreated illness, defects or deformities among other members of the family or, in a tenement house, of the neighbors' families; whether work is done on the premises and, if done, what kind of work; and what sort of work is performed by the various members of the family. She tries to refer these people to the different departments of the hospital for whatever treatment she thinks necessary, as, for example, to the nose and throat dispensary for adenoids, to the nervous dispensary for electricity and massage, or to the laboratory for tuberculin or Wassermann tests; she sees that children return to the children's dispensary from time to time; sends other children for examination or treatment; secures hospital care for those too ill to visit the dispensary; sends some to the seashore, to special sanatoriums or to open-air schools; gets out-door jobs for convalescents and other employment for others; gives careful

instructions to those about to become mothers, and refers the needy and undecided to the chief of our social service department, Miss Helen Glenn, for her counsel. It is a pleasure for me to acknowledge here our great indebtedness to Miss Glenn and her assistants.

In cases in which there is possibility of an acute infectious disease, and in any case of gonorrhea, syphilis or tuberculosis, the nurse arranges for the isolation of the patient and instructs adult members of the family as to the means and manner of preventing further contagion in that household. If isolation is impossible, she persuades the family to allow the child to be removed to the special hospital for the treatment of contagious diseases. In case of extreme poverty, or when there is insufficient food or clothing, she tries to find means to ameliorate existing conditions. The patient is usually taken to the hospital, and some charitable organization is asked to investigate and relieve the family. When the nurse suspects that children may have been or are being abused, she directs the attention of the Society to Protect Children from Cruelty to the family. She may also arrange for the free dispensation of medicine to members of such families, on the physician's request.

The nurse may also be instructed to leave printed "diet" and "don't" lists in homes in which there are children; to wash out a stomach or to irrigate the intestines; to give special baths, sponging, oil rubs or massage; and to give minute instructions for the preparation and administration of food and medicine. She may also be able to secure specimens of sputum, urine and feces for examination, if the physician desires. She tries to impress on pregnant women the importance of care before and after delivery, and urges mothers to keep their infants with them; she also tries to correct certain bad family habits, such as the lack of toothbrushes; the common custom of leaving food uncovered, exposed to dust and flies; a family, including one or more sick children, congregating about the kitchen range in cold weather with doors and windows all tightly shut; or the prevalent habit of children rushing off to school without having had any breakfast or after hastily swallowing some fresh cinnamon bun or roll, with a drink of tea or coffee.

Should there be no older person to accompany the child to the dispensary, the social worker tries to find some one to bring the patient to the doctor regularly. If a child should suddenly grow worse, she arranges to rush both mother and baby to the hospital; and if the person who accompanies a child should chance to become ill or to faint while in the hospital, some one is provided to see that they both reach home safely. The remarks of the visiting nurse have been the means of stopping, in many homes, not only the use of patent medicines but also the old custom of "baby pacifiers." Many children with defects of speech, spinal curvature, backwardness, adenoids, otitis or enuresis, which so many parents consider incurable, have been brought for treatment and improved if not cured. Besides, places as domestics have been found for mothers, with or without their children. It would not be difficult to refer to many instances of what appeared to be trifling matters in which the existing problem was solved with the aid of the social service department, eventually making an entire family again independent.

In the feeding of infants and children much has been accomplished. The nurse, who continues her visits even after the child seems well, can encourage breast-feeding until warm weather is over; can keep away all other foods; can teach the habit of feeding at regular intervals; can arrange for a wet-nurse if the physician wishes; or can teach the proper preparation of the baby's food under the doctor's orders. She can oversee weaning when the time arrives, and the general care and feeding of the older children, preventing

the common indulgence in sweets, fresh cake and bread, especially between meals; and the overindulgence in tea, coffee and fried foods of all kinds.

Our best results were achieved in the acute gastro-intestinal attacks of infants in the summer. Here the elimination of the cause, which is always the food, saves the baby. No matter how carefully, how urgently or how decidedly the physician tries to impress on the baby's mother the importance of this fact, a friend, a neighbor or frequently the baby's grandmother persists in feeding the baby. But when a nurse comes into the household daily, prepares the boiled water or lactose solution and makes the mother understand, often through an interpreter, that any food may kill her baby, we get results. Three of our case histories follow, one from each of the summer months:

Case 1.—Baby C., 18 months old, of Italian parentage, the only child (one of twins, the other having died nine months before) was brought to the dispensary, June 28, with a history of vomiting and diarrhœa for three days. She had been partaking of all the food that her parents ate. Her temperature was 103.2 F. All food was stopped and only lime-water and cinnamon-water and 5 per cent. lactose solution were allowed, beginning with one-half ounce at a time, iced. The nurse, who was present in the dispensary, visited the family the same afternoon and showed the mother how to prepare the solution. The next day, as vomiting had ceased, the quantity of lactose solution was gradually increased; the day after that whole milk was added and this was readily increased until the mixture was one-half milk. Five days after the nurse's first visit the baby was well, on undiluted milk. The mother has been very grateful, bringing the child back for every trifling ailment.

Case 2.—Baby V., 6 months old, ninth child of Italian parents, was brought to the dispensary, July 14. He had been weaned almost two months earlier and was taking 5 ounces of mixture of milk and water (2½ ounces of each) every three hours. He had been vomiting and his bowels had been loose and stools green for three days; though he had refused his bottle his mother kept urging food on him. His temperature was 104.4 F. As the mother refused to allow him to remain, even for a day, in the hospital, he was given castor oil and sent home. The nurse visited him that same afternoon, showed the mother how to sponge him and to prepare the lactose solution. Two days later he was put to both breasts every three hours for five minutes, followed by the lactose solution. This was continued, a little milk being added to the lactose solution. In six days he was back on the breast solely and was doing well. In this family some of the other children were brought to the hospital for treatment and diagnosis, and others were sent to the seashore.

Case 3.—Baby D., the fifth child of Russian parents, with a tuberculous mother and sister, was brought to the dispensary first in July with indigestion because of being nursed too often and being allowed to take too much at each nursing. When 3 months of age, in August, he was brought back, ill with diarrhea and vomiting, and a temperature of 101.4 F. On being taken from the breast, given a dose of castor oil and put on lactose solution, he fully recovered in twenty-four hours. In this family no single member has been without some benefit from the work of our social service department.

During the summer of last year, for the first time in ten years, I did not have to sign one death certificate in the dispensary and, so far as I can discover, only two of our patients were admitted to any hospital in a moribund condition. We were unable to observe a single case of cholera infantum and the only really ill infants were found among the foreigners, the Russians and Italians. From this it is evident that, while our former campaigns in the educa-

tion of mothers in preventive medicine have benefited those who could talk and understand English, we have not yet been able to reach the foreign population. While the nurse did good work in preparing the feedings, she also explained to those women the ordinary rules of hygiene, both before and after delivery, fresh air, bathing, water to drink, clothing, covering, and the myriad trifling details of which so many mothers are woefully ignorant. Her other great work was in urging mothers *not* to part with their children.

It is, then, no idle boast for me to terminate with the statement that, with the assistance of our social service department, the children's dispensary has been able to save many lives (especially among infants of foreign parentage), much contagion, illness, worry and even expense. It is my hope that the possibility of usefulness in this field may deeply impress you. Far as our work has gone the field of usefulness to humanity seems still wider. There can be no doubt that contributions will never fail to be forthcoming to support work of such a philanthropic character.

A CASE OF EGGSAGGERATED EGGO.

An ancient Roman epicure once remarked that he would have oysters even if he had to grow them on the roof of his house. Our modern lovers of pure food and good living may be glad to take a hint from the slow city of Philadelphia and convert their roof gardens into henneries so that they can enjoy the luscious egg before it has lost its bloom. The *Times* of the aforesaid city tells a most astonishing story of high altitude eggs, which is as follows, if the *International Hospital Record* has made no errors in transcribing it:

"Aerial poultry farming in a glass-enclosed roof top during midwinter in the center of the uptown district has proved a successful innovation at the Northwestern General Hospital, where a record of four and one-half minutes has been established from the signal cackle of a Rhode Island Red to the serving of her egg upon toast at the bedside of the patient.

"The sky-line hen yard had its beginning recently, when absolutely fresh eggs were essential as lifesavers for one of the sufferers. A small, uncompleted sun parlor occupied one end of the hospital room, where the sun on the coldest days produced a Palm Beach temperature as it poured through the thick pines.

"It was here that the ingenuity of physicians and the Rhode Island Red's ability to accustom herself to altitude and anxiety to prove she wasn't responsible for the high price of eggs, formed the nucleus for the unique and unparalleled little farm.

"Physicians at the hospital say that the ability to send still warm eggs to the diet kitchen and then to patients with lightning-like rapidity, has played an important part in the wonderful cures being performed there.

"The original little red hen, which was formally christened 'Queen of the Diet Kitchen,' has been augmented by five other feathered matrons, all striving for altitude laying records. The hens were all sent from the Kurtz farm at Lancaster and took readily to their sun parlor home.

"Roosts, nests and every modern convenience have been provided and they are cared for even down to manicuring and grain and oyster shell dieting by Harry Doyle, orderly and chicken (feathered) expert.

"Doyle asserts that he can hear the cackle, which heralds the arrival of an egg, even when engaged in one of the wards, and, if shown proper encouragement, he will solemnly avow that he can tell which hen gave him the wireless call for quick action.

"So expert has Doyle become in his roof egg hunting trips that he is on his way downward with the eggs before the 'Queen of the Diet Kitchen' or her feathered sisters have finished clucking.

"Ranking next to the actual egg producers in importance in the 'hen-to-toast system' is the rosy-cheeked and white-capped nurse in charge of the diet kitchen.

"The nurse as a culinary expert, according to the latest medical rules, is considered one of the best, and when the egg reaches her in the rapid transit she proves to be a feminine sorceress.

"There are several bewildering movements of her white-cuffed wrists, the flash of an antiseptic egg poacher, the click of a sterilized spoon, a puff of blue flame, and the next instant a raised circle of gold surrounded by milky whiteness has been flicked with wondrous cunning to its pedestal of warm, brown toast.

"Another pretty nurse holds a heated plate and just as the stop watch ticks the final of the four minutes and thirty seconds, the wonderful poultry creation is at the bedside of the patient with the much-abused liver in private room No. 5 or helping little Nora Coffey in the same ward who is being drawn out of the clutches of death by the wonder-working surgeons.

"Incidentally the egg is delivered with a smile such as nurses of the Northwestern General are noted for, and the No. 5 patient lays great credit upon that fact, as a quieter for his liver, and little Nora forgets for an instant her suffering, and smiles in return.

"The surgeon says that he has experienced very little difficulty in keeping the hens in laying form. The house is carefully ventilated and kept in such spic and span condition that Doyle has pleaded for miniature linen caps to adorn the crimson combs.

"A near-tragedy was recently averted when a feathered matron attempted to digest a rusty ten-penny nail, which had found its way into the section reserved for the dust bath.

"The hen gasped a weak S. O. S. and was about to be ready for the slow procession when Doyle dashed into the accident ward, and Dr. J. K. Marks, the resident physician, operated upon the craw successfully. According to Doyle, the Leghorn has since doubled the regular union hours for laying as a mark of gratitude."

With all deference to Madam Hen, for whom we have the greatest respect, we must confess that her conduct betrays a streak of eggotism which is disappointing in so useful a bird. We like modest, quiet hens. When any hen, in Philadelphia or any other henvironment, gets the notion that she is so essential that the world can't go on without her two eggs a day, we fear that she is suffering from an eggsaggerated idea of her own importance. Better have her eggsamined by an alienist.

THE GREEK NURSE.

WRITING in the *Interstate Medical Journal,* Dr. Achilles Rose, of New York, pays high tribute to the women of Greece for their interest in education and culture. In speaking of the work accomplished by the women's educational society he has this to say about nurses and their progress in Greece:

Among the objects of the society from its start has been that of elevating the status of women nurses to one of dignity, which previously had not been accorded to them. Nursing the sick as an occupation was practiced by women of the humblest classes, and they were not considered higher than washerwomen; there existed at that time among the ordinary people no idea that nursing the sick was a noble vocation worthy of well-educated, well-trained women.

In the year 1875 Queen Olga requested Dr. Nicolas G. Makkas to write a textbook for the instruction of nurses. In the following year the Queen appointed a committee of distinguished men to collect money for the erection of a new hospital to equal the best modern hospitals of Europe. This hospital was opened in the year 1884 and was called Evangelismos.

It is to a great extent due to the warm interest and the personal devotion of Queen Olga that the contributions to this hospital from the beginning came in so richly and continued to flow all the time, but the truth is that there exists no place on earth, no city in the world, which is, in proportion to its size, so generous as Athens in the matter of philanthropy.

In speaking of the site, the Evangelismos is the most wholesome, most beautifully situated hospital that can be imagined. It stands on high ground, with a magnificent view on a scene dominated by picturesque mountains and a scenery which is dear to everyone who is familiar with ancient Greek history. There is a current of air from the mountains of the north, modified sometimes by sea breezes, which were highly appreciated by the ancients. It is on account of this fresh mountain air that the Americans and the English have selected the places for their archaeological schools in the neighborhood of the Evangelismos. It is well known that on account of the purity of the air in Greece, especially in Athens, septic diseases are of rare occurrence and of little danger. Erysipelas, for instance, is considered a harmless affection.

As has been mentioned already, it was Queen Olga, now the Queen-widow, who inspired and still inspires the work, but unlike instances of this kind in which patronage by a high personage means principally receiving reports, contributing means, we have here an example of devotion without equal. The interest which the Queen takes in the welfare of the hospital is admirable indeed. While in Athens she takes personal notice of the most minute details, visits the hospital daily, goes to the bedside, consoles the suffering. And through the daily press we know how indefatigable she and the princesses of the royal family have worked for the wounded during the last war.

Visiting the different hospitals of Patras and Athens, there was one thing which surprised me especially—the high standard of education and refinement of the nurses in general. It is true there were many German, Danish and Americans among them, but as a rule they spoke, besides Greek and their mother tongues, several languages; all the native Greek nurses, as far as I experienced, spoke German and told me that they had learned it in school.

The details enumerated here tell of the nobility of Greek women of all classes, and it may truly be said that there is no nation by which women are higher respected than by the Greek. This fact alone argues a great future for the Greeks. Ever since I began to try to enlighten the medical profession on the true character of the Greek people, I predicted that the greatness of Greece will not only remain to be a thing of the past, of the glorious classical period, but it will be also in a glorious future.

THE FUNCTION OF SEX EDUCATION.

By Helen M. Smith, New York City.

The necessity for giving instruction to young people on the function of reproduction has become widely recognized, but there is still a good deal of confusion in the minds of many as to the best time and method and place for such instruction. The problem would be greatly simplified if those who are trying to solve it would get a few facts fixed firmly in their minds. After all, the difficulty lies more in the minds of the grown people than in those of the children.

In the first place, reproduction is a perfectly normal function; just as natural a part of life as eating or sleeping or exercising. This is the natural attitude of the child whose mind has not been perverted. If the child's questions about reproduction are answered in the same spirit as all his other questions, his reaction is not different from his reaction to any other subject. To the child, this subject is no more wonderful or strange or peculiar than many of the interesting things he is learning every day. A child who is taught naturally will accept it as such. It is grown people who have surrounded the subject of reproduction with an air of mystery or shame and set it apart as a thing not to be mentioned. The difference in the attitude toward the subject between the adult and the child is illustrated in the experience of one mother whose little girl of ten had asked several times where babies come from. Each time the mother had put her off, dreading the ordeal of telling. Finally, after reading and thinking over the subject, she called the child and told her she could ask any questions she wished. The little girl asked only a few; then she said, "May I make candy this afternoon?" Her curiosity, not having been perverted, was easily satisfied and the object of it soon forgotten. People who try to keep their children innocent, as they call it, not letting them know anything about reproduction until they have grown up, are confounding innocence with ignorance, and have a wrong and distorted view of the whole subject in their own minds.

But even if it were desirable, it is almost impossible to keep children ignorant. Childhood has a normal healthy curiosity about everything. If this curiosity is thwarted on any subject, that subject takes on a new interest, and information in regard to it is sought from any source where it may be obtained. So that, instead of learning the pure and normal story of reproduction from his parents, whereby he might keep his innocence, the child gets a disjointed, distorted and often perverted version from his companions or some evil-minded older person, so that he loses his innocence, but keeps his ignorance. It is a fact little appreciated by older people, yet nevertheless true, that when children are left to find out for themselves the facts of reproduction, it is always the abnormal and the unfortunate side which they learn about, so that they get an entirely wrong viewpoint of the whole subject. The very best way to prevent morbid curiosity is to satisfy normal curiosity. A physician who is keenly interested in the instruction of children in reproduction said that the trouble with his own children was that he could not make them feel any interest in the subject. He had taught them the function of sex along with other things from early childhood, and now that they knew about it, the subject has lost interest.

Except in a very few cases, it is not possible to keep children entirely ignorant of the function of sex even if it were desirable, but it is most undesirable. There is a psychological reason for this. Up to the age of puberty, all normal children have what might be called an objective way of looking at things; that is, the interest is in the thing itself, with very little concern of the relation that it may bear to their own lives. This is what makes the delightful lack of self-consciousness in childhood. This is particularly noticeable in its bearing upon the subject of sex. To the child whose mind has not already been perverted, this subject is just as natural and no more strange than any other subject about which he is getting information, and causes no more feeling of self-consciousness or embarrassment than any other. A little boy of nine was showing some visitors about his father's place and explaining various things of interest. He told how the snapdragons were fertilized by the bees and when the bee got inside the flower, the petals would close together on it so they could catch it. The gladioli, he said, were fertilized by the humming-birds. Then he showed some pigeons shut up in cages. When asked why they were kept shut up, he said that his brother had put them there

to mate; when they were through mating they would be allowed to fly with the other pigeons. This child was learning the facts of reproduction in a perfectly natural way and fitting them quite unconsciously into their normal place in life.

During the period of adolescence great changes, both physical and psychic, take place. The child grows abnormally self-conscious. His attitude toward life becomes subjective. Whereas to the child the function of reproduction was impersonal, to the adolescent boy or girl, it is intensely personal. Every fact is applied in its relation to himself. If the child has already learned the process of reproduction in a wholesome manner, so that it has taken its normal place in life, and if he feels free to go to one or the other of his parents when new thoughts or feelings arise, he will very likely pass through this period without undue agitation. If, on the other hand, the child has received his first information in an unfortunate way from other children, the new subjective application of these facts may lead to disastrous results. We hear alarming statements from time to time of the immorality of boys and girls who are scarcely more than children, and of the seduction of very young girls by older men. It is my opinion that the majority of these cases could be traced to a prurient curiosity which has become strongly subjective; a curiosity so strong as to overcome any natural modesty. Many children who would not go so far as to do what they know to be wrong, nevertheless talk a great deal about the subject among themselves in both a morbid and prurient way.

If the young person learns about the function of sex for the first time after the period of childhood is passed, the information is received subjectively and comes as a shock to the sensibilities. Young people of sensitive nature who have had no adequate instruction in childhood, often suffer intensely during their youth because of their inability to make an adjustment of the facts of sex to the rest of life. Many look upon the subject with feelings of shame and fear; sometimes growing so morbid over it as to cause a state of ill health. A physician who has had the confidence of a great many young people, once said that the mental distress in youth caused by a lack of understanding of the subject of sex was far more widespread and of much more serious consequence than most people had any idea of.

A girl of eighteen came to me one day greatly troubled. She said life seemed so dreadful. I asked what the matter was and she replied with the question: "What is all this about passion, does everyone have to have it?" I said, "Tell me what you have heard." She replied that when she was quite a small child she had been told everything by another child in such a dreadful way that she was ashamed of her own father and mother. Lately she had heard other things. Some one said "Men had to be bad." Another one said, "If they were bad they got a terrible disease." The only thing her mother told her was of the shame of being an unmarried mother. She and her friends had been trying to understand the meaning of it all. They had talked and thought of it so much that they had grown morbid. I invited the girl to come to my house and bring her friends. In a series of talks, I told them the whole wonderful story of reproduction, from the plants through the animals to the human beings, explaining fully everything on the normal side and answering all questions. A few months later this young girl wrote to me saying, "I never think about that subject at all any more, I don't have to. I understand all about it and now it has just sunk down to the bottom of my mind." A thorough and right understanding of the pure and normal side of the function of sex is the very best and safest way to prevent morbid or prurient thought and conversation.

We have seen that sex is a perfectly normal function and should be looked upon as such, that even if desirable, it is not possible to keep children ignorant, but that it is not desirable, because during the objective period of childhood is the time in which the facts are received most naturally and given their normal place in life. The question still remains, who shall tell the story. Ideally, it is not only the parent's duty, but also his privilege, to tell his own child. Practically, many parents are still unfitted for the task. Some have too low ideals, others are manifestly too ignorant, still others are either unwilling or indifferent, while many who are fitted in every other way have lost the confidence of their children and do not know how to broach the subject.

The question has arisen frequently of the expediency of giving this instruction in the public schools. It is my belief that it should not be undertaken without the greatest care, and only under two conditions: First, that

teacher can be secured who not only understands her subject, but who looks upon it with reverence, and who has high ideals of life; one who loves and understands children and who knows how to win their interest and affection. Second, there must be the co-operation of the parents, at least in the beginning. I think it a mistake to teach children the story of life when the parents do not wish it done. It is possible often to meet their objections and win their co-operation. Perhaps the best way is to call a parents' meeting and have the lecturer tell why it is so necessary to teach children in a pure and reverent way, then she might explain how she is going to take the subject up. Finally, all parents who wish their children to join such a class should sign a paper to that effect. Even if the first class is small, more parents will wish to take advantage of the opportunity later, if the experiment proves successful. Another advantage of this method is that it gives an opportunity for the child to tell what he has learned to his parent, and thus re-establish the confidence which is so often lacking. The teacher should always instruct the children to tell their parents what she has told them, at the same time explaining to them that the subject is sacred and for that reason should not be discussed with other children. If the teacher has been successful in winning the confidence and the liking of her pupils, a request not to discuss it with other children, for the reason given, will usually be sufficient to prevent the talk so often feared; particularly if an opportunity is given to ask her any questions that may be on their minds.

As to the method of teaching, one thing is most important. The function of sex is a very vital part of life, and when the subject is taught it should not be cut off from life and given as so many scientific facts, but it should be related to life as a whole. Sex has two sides; the physical side and the ethical side. These cannot be separated without disaster. The physical must be interpreted in the light of the ethical. Mere scientific knowledge, no matter how clearly understood, has no effect upon conduct. Such knowledge is necessary as a foundation on which to build, but after all, *the important thing* to be understood is the ethical interpretation of these facts. Edward Howard Griggs has said "It is always dangerous to know the facts of life without appreciating their spiritual corollaries." This is nowhere so true as it is in those facts which have to do with the great function of reproduction.

NURSING NERVOUS PATIENTS.*

By Mildred Lucie Spackman.

The nurse who is most successful with nervous patients is she who possesses a nervous imaginative temperament, well under control. She must be extremely tactful, sympathetic and adaptable. Mr. Stephen Paget suggests that a doctor is much improved, from his patients' point of view, if he has to undergo a severe operation, or has a serious illness, at the beginning of his medical career; this (though it sounds unkind) is perhaps also true of the nurse. She would understand—to her patient's benefit—the minor worries of invalidism, and remember that an invalid's point of view is often out of perspective. The nurse must always keep her mind open to fresh impressions, remember that no two people are alike, and that no two patients can be treated exactly in the same way. Above all, she must take care of her own health, and never let her thoughts dwell on the patient when away from her.

It is unfortunate that there is a widespread idea that sympathy is bad for nerve patients, and that they do not deserve it. Nothing could be more erroneous. "Sympathy" is not synonymous with "pity," neither is it sympathetic to tell a patient how ill she looks, or otherwise encourage her sensations of ill-health. Sympathy, in the true sense of the word, will enable the nurse to comprehend the patient's feelings, win her confidence, and thus be able to help her. It is always possible that a patient's nerves are upset by a secret trouble, though she may pretend some other cause. Nervous patients are usually over-sensitive, and the nurse should be very careful to avoid snappiness, however "trying" the patient may be. The patient probably finds her equally

*Reprinted from *The British Journal of Nursing*.

"trying," and is suffering more. A patient who has been snapped at may refrain from expressing any emotion (which does not imply that she is not affected by it) for the remainder of her illness, and will certainly never confide in her nurse, or respect her. Too much self-control is sometimes as bad as too little.

Nervous terror of the most ordinary incidents is a frequent symptom in nerve cases, especially after a long illness or bad attack of influenza. Many patients—often the worst cases—do not talk of these feelings, through pride, or fear of being thought silly, or even insane. If the nurse suspects the existence of these feelings, it is perhaps kinder for her apparently to ignore them. She can help the patient without alluding to it. She might speak casually of a "case she once had" where the patient suffered from nervous terrors, and who forgot them as she recovered. And if the patient is "nervous" of speaking to people the nurse could—momentarily—take the lead in the conversation when a visitor comes in and gradually efface herself. In time the patient will rely on her, and cease to be conscious of her nervousness. With any form of nervous terrors, if the patient has confidence in and reliance on her nurse, it will be easier for her to regain her normal condition than if she had not that confidence and reliance. This is especially the case if the patient is inclined to give way, or does not recognize the sensations as abnormal, and know what is normal.

Some patients implore the nurse not to leave them alone with the doctor; others prefer the nurse to be absent during the medical interview. The patient's wish should always be studied in this matter, and if she expresses none the nurse should leave patient and doctor together, without appearing to have made a point of doing so.

Nervous patients require more rest than others, and the nurse must see that it is undisturbed. She must not go into the sick-room after the patient is made comfortable for the night, unless for an important reason. The very fact of expecting the visit would keep many people awake, and if the patient had fallen asleep, there is always the risk of waking her, and thus causing a bad night. Some patients wake up at one or two in the morning, and find it impossible to sleep again. A glass of hot milk often remedies this, and it could be put in a vacuum flask on the bedside table the night before, so that the patient can help herself at whatever hour she awakes. Rest during the day is equally essential. A patient who feels wretched and unstrung is generally much better after an hour or two's absolute quiet with an interesting novel, or, if tired, as well, a long sleep. Nervous patients should cultivate the art of lying quietly and restfully when unable to sleep.

Many patients dislike being asked how they are and how they have slept immediately the nurse enters the room in the morning. Great tact is often required in asking any questions at all, and if the patient can be induced to give the nurse all necessary information without being asked, so much the better.

The patient's diet will be prescribed by the doctor, but the nurse should see that it is daintily served, and as varied as possible. The appetite is even more capricious than is usual with an invalid, and a very slight thing may cause the patient to enjoy, or refuse, a meal. All food should be light, nourishing and extremely digestible.

Fresh air—if only through an open window—sunlight and cheerfulness, are all necessary to the patient's recovery. People who are dull, or pay lengthy visits, or are exceedingly emotional, should be excluded from the sick-room.

Some colorings in wall papers are more soothing than others; green and blue are the best shades. Unfortunately it is rarely in the nurse's power to choose.

An over-crowded room is never restful, and it is always possible to remedy this matter.

Quack Medicine Vendor—"Here you are, gents, sixpence a bottle. Founded on the researches of modern science. Where should we be without science? Look at the hancient Britons. They hadn't got no science, and where are they? Dead and buried, every one of 'em."—*Punch.*

I have loved the feel of the grass under my feet; and the sound of running streams by my side. The hum of the wind in the treetops has always been good music to me, and the face of fields has often comforted me more than the faces of men.—JOHN BURROUGHS.—*Atlantic Monthly.*

CHARITABLE HOSPITALS NOT LIABLE FOR NEGLIGENCE OF NURSES.

The Supreme Court of Nebraska says that it is a well-established doctrine that a charitable institution conducting a hospital solely for philanthropic and benevolent purposes is not liable to inmates for the negligence of nurses. Some courts say that one accepting the benefits of such a charity exempts his benefactor from liability for the negligent acts of servants. Others assert that non-liability is based on the ground that trust funds created for benevolent purposes should not be diverted therefrom to pay damages arising from the torts of servants. Exemption from liability is frequently sanctioned on the ground that public policy encourages the support and maintenance of charitable institutions and protects their funds from the maw of litigation. While there is a diversity of opinion as to the reasons for the rule, the doctrine itself is firmly established.

Nor does a charitable institution conducting a hospital by accepting compensation from a patient who is able to pay for room, board and care incur liability to such patient for the negligence of nurses. Money accepted from patients who are able to pay it does not go to persons who may be trustees, directors, founders, or incorporators of the institution, and is not a source of pecuniary gain to private individuals, but is devoted to the general purposes of the charity.

Consequently a charitable institution conducting a hospital for benevolent purposes alone does not necessarily incur liability in damages for the death of an insane patient who committed suicide when alone in a room, though pay for the patient's room and care was accepted under an oral agreement to keep a nurse in constant attendance. —*Journal of the American Medical Association.*

Questions and Answers.

The following answers are not "official." They are prepared for the editor.

UNIVERSITY OF THE STATE OF NEW YORK, 20TH NURSES' EXAMINATION.

BACTERIOLOGY AND SURGERY.

Thursday, June 26, 1913—9.15 a. m. to 12.15 p. m., only.

Answer 10 *of the following questions. Each complete answer will receive* 10 *credits. Papers entitled to* 75 *or more credits will be accepted.*

1. Define (a) culture, (b) culture media.

Ans. (a) The artificial propagation of any organism or the result of such propagation. (b) Substances used for the artificial cultivation of bacteria.

2. What would you use as a stopper to insure the sterility of the contents of a bottle or a test tube?

Ans. Sterile cotton.

3. What are ptomaines?

Ans. Alkaloidal or basic products of putrefaction.

4. Name (a) *two* diseases due to bacteria in the air, (b) *two* diseases due to bacteria in water and soil, (c) *two* diseases due to bacteria in food.

Ans. (a) Tuberculosis, influenza; (b) cholera, tetanus; (c) typhoid, diphtheria.

5. State the air space of a room that 16 ounces of 40 per cent. formaldehyde and 6¾ ounces of potassium permanganate will effectually fumigate.

Ans. One thousand cubic feet.

6. After a room has been fumigated as suggested in question 5, what can be done to destroy the fumes if the room is needed soon?

Ans. Evaporate ammonia water in the room.

7. How can you tell when a plaster bandage is sufficiently soaked?

Ans. Air bubbles cease to rise from it.

8. What is the simplest way of making a sling?

Ans. Fold a handkerchief diagonally.

9. Name *two* common gynecological positions.

Ans. Dorsal, Sims.

10. What is the approximate temperature of steam under a pressure of 15 pounds to the square inch?

Ans. 212 degrees Fahrenheit.

11. What determines the real value of a disinfectant?

Ans. Its property of killing all species of bacteria and their spores.

12. If you had less than 12 hours in which to prepare a carpeted room for a surgical operation, what would you do about taking up the carpet? Why?

Ans. Leave it in place and cover it well. Because it would be dangerous to stir up dust in the room and attempt to sterilize the room in less than 12 hours.

13. How should new nail brushes be first treated?

Ans. Wash thoroughly in soap suds, dry quickly, and sterilize.

14. How long should you scrub your hands with soap and water when about to assist at a surgical operation?

Ans. Five to ten minutes.

15. What solutions are most commonly used for irrigating the bladder?

Ans. Normal salt solution, saturated solution boric acid.

Vermont Board of Registration of Nurses.

ANATOMY AND PHYSIOLOGY.

Examination at Montpelier, Vt., May 8th, 1913.

1. Name the three great cavities of the body.

Ans. Abdominal, thoracic and cerebrospinal.

2. How many bones in the lower extremity?

Ans. Thirty.

3. Why do bones of the aged break more easily than those of the young?

Ans. Because they are less spongy and elastic.

4. Name the divisions of the small intestine. What is the pylorus?

Ans. Duodenum, jejunum and ileum. The distal opening, or outlet of the stomach, leading to the duodenum.

5. What is the function and capacity of the gall bladder?

Ans. To store up bile. Eight to twelve drachms.

6. Where does the femoral artery begin?

Ans. At Poupart's ligament.

7. How do arteries and veins differ in structure?

Ans. Arteries have thicker walls than veins, and a larger proportion of muscle and elastic tissue. Veins have valves.

8. Name four particulars in which expired air differs from the air inspired.

Ans. 1. It is warmer, usually. 2. It contains more moisture. 3. It contains more carbon dioxid. 4. It contains less oxygen.

9. What is the shortest possible course blood can take in passing from one side of the heart to the other?

Ans. Through the coronary arteries, capillaries and veins.

10. What is the size of red blood corpuscles? Of white blood corpuscles?

Ans. Red corpuscles, 7 to 7½ microns in diameter; white corpuscles, 5 to 10 microns in diameter.

11. Of what elements are fats composed?

Ans. Hydrogen and carbon.

12. When is a limb flexed? Extended? Abducted? Adducted? Rotated?

Ans. Flexed when it is bent; extended when straightened; abducted when drawn away from median line; adducted when drawn toward median line; rotated when turned around itself without other change in its relation to body.

MEDICAL NURSING AND HYGIENE.

1. State (a) the cause, (b) the symptoms of bed sores. (c) How prevented? (d) Give treatment in full.

2. What is (a) the normal temperature of the body in health? (b) What are the limits of temperature in health? (c) Where

may temperature be taken? (d) How does it differ in these locations?

3. Name the sequelae and complications of scarlet fever.

4. How do typhoid bacilli enter the system? (a) By what mediums are they conveyed? (b) What precautions must a nurse adopt to protect herself and others in nursing typhoid?

5. Give some of the "danger signals" in pneumonia crisis. (a) What treatment should be given at the time?

6. Define (a) communicable (b) contagious (c) infectious disease. Give example of each.

7. Under what conditions are nutritive enemas ordered? (a) How are they given? (b) How often? (c) Give a formula for same.

8. Give nursing treatment in detail for sudden collapse of patient.

9. Describe appearance of blood in hemorrhage from lungs. (a) Define nurse's duties in such an emergency.

10. Give all the essentials of an ideal or hygienic sickroom.

11. What are the duties of a nurse when caring for a case of tuberculosis?

12. What is (a) empyema? (b) Of what disease is it a sequel? (c) Give treatment.

13. How can you determine if the air of a sickroom is fresh?

MATERIA MEDICA AND URINALYSIS.

1. What are the names of weights used in the apothecaries' table?

2. Define (a) expectorant, (b) digestant, (c) rubefacient, (d) diuretic, (e) emetic, (f) cathartic.

3. Give dose of croton oil. (a) How best administered?

4. Give (a) ordinary name of oleum tiglii, (b) oleum terebinthinae, (c) oleum ricini.

5. If nitroglycerine gr. 1/200 hypodermically was ordered and you only had tablets gr. 1/100, how would you proceed?

6. Name two emetics easily procured in any household.

7. What is indicated by the order, "Give hydragyri chlor mite, grs. *ii,* t.i.d."? (a) What should be avoided in diet after?

8. What precautions should be taken in administering iron preparations? (a) Name some of the iron preparations used as medicine.

9. Give usual hypodermic dose of strychnia. (a) Name two alkaloids of opium in common use and hypodermic dose of each.

10. How would you treat a case of poisoning by carbolic acid?

11. Give test for (a) acid, (b) alkaline urine. (c) Give a test for albumen in urine.

12. What is specific gravity of normal urine? (a) Give amount secreted in twenty-four hours.

Have your answers to these questions ready for comparison with the answers to be given in a later number of the GAZETTE.

WHAT SHOULD A NURSE *NOT* DO?

SHE should not undertake a new case when she is dead tired.

Not stay for years in private nursing without attending new lectures or courses of training.

Not cease to study after passing her examinations.

Not forget to become a subscriber to a nursing paper.

Not consider the purchase of new books of study unnecessary.

Never lose an opportunity of visiting a hospital.—*From the Dutch Nosokomos.*

A TERRIBLE STORY.

IT is reported from St. Petersburg that a young peasant woman after her confinement in one of the local hospitals in Irbit fell into a state of coma, which the nurse in charge of the maternity section took for death. The "body" and that of the still-born child were taken to the mortuary chamber of the hospital and the door as usual was locked for the night. Next morning the woman was found dead of sold, huddled against an empty stove, with her baby in her arms. She had wrapped up the baby in her sole garment, a night-gown.—*British Journal of Nursing.*

TECHNICALITIES.

ITEMS of value to nurses in their work will be welcome to this column.

STERILIZATION OF SCALPELS.—Whilst it is generally recognized that the sterilization of metal instruments can be more reliably effected by boiling them than by the use of antiseptics, and accordingly most instruments are submitted to this process, a notable exception is made of cutting instruments such as scalpels, which of all instruments ought to be perfectly sterile. The objection to boiling these arises from the fear of impairing the keenness of the blades, and consequently many surgeons content themselves with the method of sterilization by antiseptics. It is quite true that knives can be damaged in the course of boiling, both mechanically and through the softening of the steel, but it does not necessarily follow that they need be, if proper precautions be taken. Mechanical damage resulting from the contact of the knives with each other in the course of boiling can easily be avoided by placing them in a special rack in the sterilizer. The more serious impairment of softening, caused by the subjection of the knives to the temperature of boiling water for prolonged periods, can be prevented by chilling them immediately upon their removal from the sterilizer, by plunging them into cold alcohol, for it is the gradual cooling which destroys the temper of the steel.

BAD AIR AND PNEUMONIA.—The minute people begin to shut themselves up within doors, that minute the pneumonia germs get busy. Open windows and pure air drive pneumonia germs to cover; closed windows and foul air bestir them to activity.—*Bulletin Chicago Board of Health.*

GIVE CHILDREN FRESH AIR.—Infants and children who are kept indoors in cool and cold weather, and breathe the air of overheated and stuffy living apartments, will not digest well no matter what they feed on. —DR. AUGUST CAILLE, in *Jour. Mich. State Med. Soc.*

HOW TYPHOID IS ACQUIRED.—Tell your people that typhoid fever can only be transmitted by eating or drinking the typhoid bacilli present in the excrement of a typhoid patient, that it is not due to bad drains, swamps, stagnant pools or bad food, but that it is spread by flies, water, milk, typhoid carriers and patients.—*Bulletin Indiana State Board of Health.*

THE SMALL ECONOMIES.—In filling a syringe for a hypodermic injection, the well-instructed nurse presses out the air until a drop of the solution appears at the end of the needle. If instead a few drops of the solution are squirted out each time a hypodermic of cocaine or some other costly drug is given, that waste means a loss, to a hospital of one hundred and fifty or two hundred patients, of about a hundred dollars a year.

The substitution of the many-tail bandage for the roller bandage is another economy. When the patient came into the operating room swathed in several layers of the roller bandage, the surgeon would save precious time by cutting it off. It was therefore waste material. The many-tail bandage, as its picturesque name implies, is easily applied, quickly removed, and, through sterilization, leads a long and useful life.—*Buffalo General Hospital Bulletin.*

PREPARING CATGUT.—In the *Journal-Lancet,* published at Minneapolis, Dr. H. W. Barbour describes his method of preparing catgut. By his method the raw catgut is cut in 18-inch lengths. Each length is wound on a glass tube three-fourths inch in length. Get tubing that is used as water-gauges in steam boilers, and have them cut up in proper lengths. The gut is so wound on this tubing that the first turns fasten each end of the ligature to prevent unwrapping. The winding should be done smoothly, not allowing one turn to overlap the other. It is next placed in a solution composed of 1 part of tincture iodin in 15 parts of 90 per cent alcohol, where it remains for ten days. At the end of ten days it is placed in a 2-per cent watery solution of formaldehyde for twenty-four hours to render it somewhat harder, after which it is stored in 90-per-cent alcohol to which ½-grain of mercuric chlorid has been added for every ounce of alcohol. If desired it may be rinsed in sterile water before use. Barbour has soaked coils of catgut in a bouillon culture of anthrax, placed them in iodin solution and made cultures daily, and has found the gut sterile after the seventh day. He has not been able to detect any change in the catgut after it has been stored for six months. It has given good satisfaction in general surgical work and for skin sutures. —*Internat. Hosp. Record.*

TECHNICALITIES.

ALUMINIUM COOKING UTENSILS.—Utensils of aluminium are now so largely used for culinary purposes in institutions that the question as to what effect the various articles of food and cooking materials have upon the metal is one of considerable importance. In this connection some interesting experiments have recently been conducted at the *Lancet* Laboratories, which, on the whole, tend to show that with ordinary care there is little danger of contaminating food by the use of *pure* aluminium vessels. According to the report the observations made, under conditions similar to those prevailing in the kitchen, were the effect of cold and hot water on aluminium, of a 1 per cent. solution of common salt, of water and acetic acid, of the same solution with the addition of salt, of tartaric acid, carbonate of soda, of bacon and tomatoes, with butter, salt and pepper, fried in an aluminium pan, of preparing soup, and of boiling vegetables in an aluminium saucepan. The only instance in which any reaction worth consideration was shown was in the use of carbonate of soda, when the metal became discoloured, and a test of the solution strongly indicated the presence of aluminium. Traces of aluminium were also found in the experiments with salt, tomatoes, beefsteak, preparations of soup, apples, and Brussels sprouts, but they were so slight as to be entirely negligible. As regards the tests with water no sign was found of the presence of suspended particles of the oxide of aluminium, or of a soluble salt in water boiled in an aluminium saucepan. Wet aluminium does, however, oxidise when left long in contact with the air, and it has been found that if cold water be left in an ordinary aluminium vessel for twenty-four hours, a gelatinous substance sweats out containing aluminium and silica. As a protection against the combined action of moisture and air it is recommended that the surface be covered with a film of hydrocarbon oil.—*The Hospital.*

CARE OF CLINICAL THERMOMETER.—In a letter to the *Journal of the American Medical Association,* Dr. W. H. Wells suggests keeping a piece of cotton saturated with pure carbolic acid in the thermometer case as a preventive of infection.

NUTRIENT ENEMA.—The following makes a very good nutrient enema: Peptonised milk, 3 oz.; decoction of starch, 2 oz.; the whites of two eggs, and a pinch of salt. This should be given every six hours. One teaspoonful of starch boiled with two ounces of water makes the right quantity for the decoction.—*Hospital.*

INFECTION IN WHOOPING-COUGH.—*The Journal of the American Medical Association* states that Dr Galish has noticed that the course of whooping-cough is much more severe when several children have it together than when the child is kept apart from other children with it. The sight of others affected certainly aggravates the nervous element in the disease, and the possibility of a new infection from it cannot be positively excluded. He thinks that repeated infection is a possible factor in keeping up coryza as well as whooping-cough. In both affections he is confident that much would be gained by measures to prevent accumulation of disease products, having the child go into a second room and well ventilating the first, after each coughing spasm, using a fresh handkerchief each time in coryza.

MAKE THE BEST OF IT.—Cultivate a serene mental attitude, and develop a capacity for deliberate enjoyment of whatever is at hand. The greatest pleasure often comes from little things easily and often overlooked.—*Michigan Teachers Sanitary Bulletin.*

REST BY DIVERSION.—It is desirable to diversify your interests. Have one or two restful diversions, using a portion of your time away from your regular occupation and habitation.—*Teachers Sanitary Bulletin, Michigan State Board of Health.*

BE TEMPERATE IN ALL THINGS.—Avoid every excess. Do not overwork, overplay, overeat, overdrink, or allow yourself to become overinactive.—*Michigan Teachers Sanitary Bulletin.*

SYPHILIS.—The treatment of syphilis does not end with mercury, nor even with 606. Fresh air and an outdoor life are probably as helpful in syphilis as they are in pulmonary tubercle.—*Hospital.*

Safe for Children

Much harm is done to the naturally susceptible, easily aroused nervous organism of the growing child by the habitual ingestion of caffein-bearing beverages.

The common practice of allowing children to drink coffee, with its caffein content, is not only pernicious in its results, but unjust to these future men and women.

Many physicians are recommending

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as a safe, wholesome drink for children.

The beneficent action of Postum is largely due to two things:

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